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## SOCIAL LIFE IN MEDIEVAL ENGLAND.\*

WE are afraid that the more closely we inquire into the habits and manners of our forefathers, the less reason we shall find for envy or admiration. The "good old times," and the "wisdom of our ancestors," are articles of faith which may be safely delegated to the same limbo with the belief that there was neither wind nor rain on the summit of Olympus, or that there was a period in our history when houses were thatched with pancakes, and streets paved with gold. Hills look green at a distance. Contemplated through the haze of many centuries, we are apt to think that it must have been a singularly

happy time when ladies lived in bowers, and minstrels sang love-songs and recited the deeds of heroes at high festivals; and that the feudal ages, which furnished the staple of so many charming *fabliaux* and romantic ballads, must have been the absolute ideal of human enjoyment. But as we approach nearer to the hills, scars, and pits, and patches of uncomfortable barrenness begin to appear; and at last we discover that what we took for the softest verdure is nothing but an inhospitable stretch of rocks and quagmires. So with historical research. The illusion vanishes in proportion to the extent of your investigations. However profound our veneration may be for the superior sagacity of the founders of our race, or however fixed our conviction that the times in which they lived were richer than our own in the means of happiness, our opinions on

\* *A History of Domestic Manners and Sentiments in England during the Middle Ages.* By THOMAS WRIGHT, Esq., M.A., F.S.A., Hon. M.R.S.L. With Illustrations, from Illuminations and other sources, drawn and engraved by F. W. FAIRHOLT, Esq., F.S.A. Chapman & Hall.

these cardinal points must inevitably undergo modification when we learn that William the Conqueror was unacquainted with the luxury of a feather-bed; that our early British aristocracy lived on the ground-floor, without drainage; that King Alfred had not a chair to sit down upon, or a chimney to carry off his smoke; that the nobles and dames of the most brilliant epochs of our poetical annals ate with their fingers, generally in couples out of one trencher, on the bare table; that when a lady was in an interesting situation, down even to so late a date as the thirteenth century, she was really "in the straw"—no other description of bed being known in those halcyon days; that a traveling-carriage was an ingenious invention of modern effeminacy; that the use of forks at dinner was unknown to the royal houses of York and Lancaster; and that it was considered the height of good fellowship amongst the Anglo-Saxons to construct their drinking-glasses in the shape of inverted cones, so that they could by no means be made to stand, and must, therefore, have been drained off at a draught. When we shall have plunged deep enough in the medieval chronicles to collect a multitude of little particulars like these, we shall, probably, begin to think that the nineteenth century is not so bad an age to live in after all.

Lamentations over the past are amongst the vulgar errors common to all mankind; and the slightest reflection will discover that they are based upon a radical misconception. The old times, as we call them, were in reality the young times. That which we call the wisdom of our ancestors, was the inexperience of our ancestors working out experiments in the dark. Our progenitors were children; we are men. The present times are the old times; and we who live in them are just so many centuries older than the Egberts, the Canutes, the Harolds, and the rest. A man, as Sydney Smith says, can not go on making a thing for fifty years without making it better; and so we can not have gone on all this time building houses and furnishing them, inventing patent stoves and kitchen ranges, making broad-cloths, carpets, and linen, and summoning to our aid such potent agents as gas, steam, and electricity, without improving upon our juvenile forefathers.

But, as Dogberry says, "Comparisons

are odorous," and very liable to commit us to fallacious conclusions. If we desire to judge dispassionately of the ways of life of those who have gone before us, we must be careful not to set up our advanced condition as the standard. The Anglo-Saxon was himself an advance upon his predecessors, and, no doubt, looked upon the Picts and Scots with as much compassionate condescension as we, by comparison, look back upon him. As to our superiority, what did he know about it? He did not eat his carp with the less relish because stewed mushrooms and French mustard were unknown in his *cuisine*; and, ignorant of the scientific details of a dinner *à la Russe*, he was justified in considering his wild and plentiful banquet, with its picturesque accessories, as the perfection of hospitable entertainments. What appear to be discomforts in his household are of our making. They were not discomforts to him, in whom "ignorance was bliss," although they would be insupportable domestic afflictions to us. If we could see things as he saw them, we should, perhaps, lose less than we suspect by changing places with him. One fact, at all events, is obvious—that if we had fewer luxuries he had fewer wants, and, in so far, was better off than the people of this pampered and laborious age.

There must have been in the character of the Anglo-Saxons an element of power rarely found in primitive races. Almost all other early races have died out, and left few or no traces behind. The Anglo-Saxons lie at the very foundations of our language and our institutions. They survive in our speech, in the divisions of the kingdom, the titles of public officers, the names of towns and hamlets, and in all articles of primary necessity. To Latin and Roman sources we are indebted for our philosophy and our metaphysics; to the Anglo-Saxons we owe the substantial basis of our domestic life. We build our houses to this day with Saxon words. Pillars, beams, stairs, floor, even thatch, are Anglo-Saxon. House and home, husband and housewife, cradles, wagons, and carts, and a hundred other words, winding into the innermost recesses of our every-day associations, are all Anglo-Saxon. Bread, butter, and cheese acknowledge the same origin; but beef, mutton, veal, and pork descend from the Normans—a significant fact, which throws a broad

side-light upon the culinary history of the middle ages. The obvious inference to be drawn from the lineage of these words is, that "butchers' meat" did not enter very largely into the cookery of the Anglo-Saxons. But we know that they were great consumers of fish, and that the phrase, "kettle of fish," comes from them in its primal sense, because they usually boiled their fish in a kettle, as we continue to do; also, perhaps, in its figurative sense, as an image of incongruity and confusion, because with their fish they generally boiled, or stewed, miscellaneous contributions of herbs, vegetables, and other ingredients.

Most of our fruit-trees, flowers, and vegetables were known to the Anglo-Saxons. Apples, peaches, cherries, mulberries, chestnuts, figs, pines, and even olives were cultivated in England a thousand years ago. The manufacture of cider was in high request under the Heptarchy, when it went by the more direct and suggestive name of apple-wine. Lilies and roses, sunflowers, honeysuckles, daisies, and violets abounded in the pleasure-gardens, which, from the earliest times, were tended with as much care as the borders of a Chinese pavilion, or the tulip-beds of Holland; and in that region which we should designate the kitchen-garden, there were to be found some of the principal varieties of herbs and vegetables, such as cabbages, turnips, and beans, parsley, mint, rue, garlic, and sage.

Our advance in the way of popular amusements has not kept pace with our progress in other directions. Tops and marbles were familiar to the boyhood of great nations long anterior to the dawn of the middle ages. The arts of roadside conjuring, and of tossing knives and balls in the air, and swallowing them with impunity, were practiced in the days of Ethelwolf; and might, possibly, be traced higher up the stream than the Roman invasion itself, if we had any authentic materials to rest upon. From the earliest times down to the end of the fourteenth century, ladies entered freely into the sports of hawking, hunting, and archery. They went out with hawks and dogs, followed the hounds, and used their arrows with considerable effect against stags, rabbits, and all manner of birds. They played nine-pins down to the beginning of the eighteenth century; and even princesses of the reigning family, who

were afterward queens of England, attended the bear and bull-baits in Southwark a couple of centuries before. The Anglo-Saxons were inveterate gamblers — a passion they inherited from their German ancestors. Chess was universal amongst them. It was always played for money, or money's worth; and, being an irascible people, they frequently lost their temper when they lost their bets, and brought the contest to a close by flinging the board at each other's heads. Dice was common in all classes. Tables, in several forms, was one of the popular games, derived originally, in all likelihood, from the Romans, and identical in principle with backgammon, the tick-tack of the English, and the tric-trac of the French. To the middle ages belong numerous games which still supply recreation to many an English circle. The shovel-board of the Elizabethan cycle has its representative in its more complex and ingenious successor, billiards. Dames, or ladies, familiar to the age of chivalry, come down to us in the shape of draughts. Several of the round games, and in-door pastimes that flourished some hundreds of years ago, are favorite resources to the present day in country houses; such, for example, as blindman's buff, hot cockles, and frog-in-the-middle. The list might be indefinitely enlarged. Questions and commands, I am a Spanish merchant, a round game said to have been invented by Queen Elizabeth, drawing characters, and endless varieties of forfeits, are amongst the trivial entertainments in which the modern drawing-room takes almost as much delight as the medieval hall.

Upon the whole the Anglo-Saxons were a stately and sedate people. They selected the best situations for their houses, on eminences commanding a complete survey of the surrounding country, and well placed for security. And they built them with a main view to the hospitalities which the exigencies of their social intercourse rendered almost the principal business of their lives. The hall was the one great apartment, to which every other, including even the ladies' bower, or chamber, were inferior. Here the chieftain regaled his followers, received his visitors, and kept open house. No person claiming hospitality was refused admittance; but the custom was regulated by a strict code of forms and cere-

monies. Strangers made it a point to arrive when the host was "at meat," and calling for the porter, announced themselves as travelers who desired leave to eat with the family. The request being duly conveyed, and leave granted, the horses, servants, and luggage of the travelers were immediately provided for, and all visitors, divesting themselves, according to the invariable usage, of their hoods and gloves at the door of the hall, as they had previously deposited their weapons at the outer gate, entered the banqueting-room, and stood at the lower end till a retainer was ordered to conduct them to seats at the table. The same etiquette was observed upon the arrival of guests who had been specially invited, with this difference, that if the host was a person of inferior rank, he went out to the gate to meet them.

The halls of rich proprietors were hung with cloths, but none appeared to have been supplied with any more costly articles of furniture than a table, consisting of naked boards placed upon trestles, so that it might be taken to pieces and removed when dinner was over, and rude benches, which the luxurious amongst the wealthy chiefs covered with cushions. The table was called the board, because it was literally a board; from whence descends to us the compound phrase of "board and lodging," which incloses the whole rite of hospitality exercised by our ancestors.

When dinner was ended, the table was taken away, and the party sat round on the benches to carouse, make speeches, and tell stories. Then came the harpers and mountebanks to sing, play, dance, and tumble before the company. Amongst some curious medieval illuminations illustrative of these usages, we find one which professes to represent Herodias dancing before her father, King Herod, at a feast given in celebration of his birthday. The lady's performances on this remarkably jovial occasion closely resemble the athletic exercises of our street beggar-boys, for she is shown first standing on her hands with her feet in the air, and then flinging a sort of circular sommersault. These singular feats are repeated in two illuminations; but it is just possible that the artist may have drawn upon imagination for his gymnastics, as he has certainly done for his history, in metamorphosing the matron Herodias into a dancing-girl.

Traveling in the days of the Anglo-Saxons and the Anglo-Normans, and even still later, was a serious undertaking. Chariots were known, but they were known only to very great people, and were used only on state occasions. The highest luxury in the way of a traveling vehicle was little better than a modern market-cart, and was not half so comfortably hung as the rudest specimens of that class of locomotive to be seen any morning at early dawn, piled up symmetrically with a load of vegetables in Covent Garden. The introduction of side-saddles into England has been ascribed to the queen of Richard II.; but it is obvious from representations of the time, that they were used by Anglo-Saxon ladies. Almost every body who went a journey, and could afford it, traveled on horseback; those who could not, trudged on foot. Except where the Romans left memorials of their civilization, at wide intervals, the roads were mere tracks, or rough bridle-paths. Nor were the difficulties of movement across country the only hazard the traveler had to encounter. The open interior, thinly populated, and inadequately protected, was overrun with robbers. The traveler who journeyed alone was exposed to a double danger. If he escaped the banditti who infested the rural districts, he was tolerably sure to fall into the hands of the guardians of property and the peace, who always looked upon the solitary wayfarer with distrust. The appearance of keeping aloof from observation, for which a man might have a perfectly valid reason, exposed him to the worst suspicions; and if he ventured through ignorance, or any other cause, to diverge from the beaten route, or what we should now call the high-road, without giving public notice of his whereabouts by shouting or blowing a horn, he was liable to be apprehended as a thief, although there might not be a tittle of evidence against him, and put to death, unless his friends came forward to rescue him. The local authorities exercised a complete despotism in these matters. Their discretion was law in an age when rights of all kinds were at the mercy of the strong hand.

In consequence of the dangerous state of the country, people who had journeys to make traveled in large troops, like Chaucer's pilgrims, and waited to make



up a sufficient company for mutual protection before they started. A journey, therefore, from one part of the kingdom to another was a serious business, and required elaborate preparations. Those who went on foot had generally amongst them a mule to carry luggage, and occasionally to relieve the fatigues of the women and children. Upon the mule's back every thing was packed; provisions, change of clothes, materials for striking lights and making fires, for constructing a tent, for a temporary bed, and for cooking, together with knives and dishes, and portable valuables, which, for greater security, travelers usually carried about with them in boxes, or portmanteaus—articles which we frequently hear of in Chaucer's time.

Inns were "few and far between." But there was a skeleton substitute for them, in the shape of empty refuge-houses, or sheds, such as we see on the bleak route of the Simpon and elsewhere in the passes of the Alps. These refuges, consisting merely of wall and roof, afforded nothing more than a temporary shelter against the weather; and Mr. Wright conjectures that they may probably have been the sites of the numerous spots now called "Cold-Harbor." The same conjecture will apply to the name of "Windy-Harbor," which attaches to many places in England and Ireland. The few inns that existed yielded little comfort to travelers of condition. With rare exceptions, they were no better than common ale-stakes, that is to say, road-side ale-houses, distinguished by a stake, or pole running out horizontally from the roof, or over the door, with a sign, or cluster of leaves, sometimes hanging from it. The want of necessary and suitable accommodation for travelers was the primary cause of the hospitality which was practiced generally throughout the country. It may be doubted, however, whether that excellent household virtue would have flourished so universally, or have borne such plentiful fruit, if it had not been in some degree forced by other influences. The clergy were the greatest travelers in England. Some of the orders were itinerant, and perpetually in motion; and of the others there were none that had not occasion at times to make pilgrimages, or perform visitations, to distant places. The whole power of the Church was consequently brought to

bear upon the maintenance of an usage from which the priesthood profited more largely than any other class in the community. They preached up hospitality as an imperative duty and a religious obligation; and even went so far as to denounce ecclesiastical censures against the head of a house who refused a lodging to a traveler. It is not, therefore, very surprising that under such a pressure we should find gates thrown open, and boards spread freely, for the reception of wayfarers. The fact dispels one of the day-dreams of history. The hospitality which is not wholly voluntary loses nearly all its grace.

The only houses of entertainment that made any approach to our modern notions of an inn, were to be found chiefly in the towns, where lodgings were also to be had by those who preferred comparative retirement, and, perhaps, economy, to the bustle and expenditure of the public caravansary. The keepers of the former establishments were called *hostelers*, and of the latter *herbergeors*, or persons who harbored strangers. There is ample reason to believe that these two classes have undergone little alteration, either in the way of deterioration or improvement, from that time—say some six or seven hundred years ago—to the present. The art of cheating at inns and lodging-houses is as old as the institutions themselves, and appears to have been cultivated with quite as much adroitness and success in the days of King Stephen as in our own. Tricks upon travelers are not the exclusive property of advanced civilization. Not alone were liquors drugged and adulterated, and stale cookery served up—just as the passenger by train or coach finds it now in places where such frauds may be attempted with comparative impunity—but the grossest impositions were practiced in the way of exorbitant charges; guests who were known to be people of substance were encouraged in running up heavy bills, and every species of advantage was taken of their ignorance and defenselessness. The lodging-house keepers were even worse than the innkeepers. They set about their frauds with a show of friendliness that was well calculated to entrap the unwary. They had their touters, to interrupt and solicit customers immediately upon their arrival, and, above all things, to put them on their guard against the rogueries of

the *hostelers*. One of the ingenious tricks of these artful dodgers was, to ascertain in conversation from what part of the country the travelers came, and then, pretending to have come from the same place themselves, to take the strangers under their special protection, showing them the way through the town, and recommending them to lodgings where, in one sense at least, they would be well taken care of.

Looking a little farther back into the Pagan period, we find that the social institutions of the country were built on an extremely loose foundation. The marriage laws and usages of the Anglo-Saxons were so brittle that they afforded no security to either party, before the introduction of Christianity; and, it may be added, that they retained much of their licentiousness for a long time afterward. The marriage ceremony, so far as there was one, might be described as an ordinary agreement entered into between the high contracting lover on the one hand, and the friends of the lady on the other. The only stipulations, or conditions, connected with it that had any binding force, related to such chattels, money, or other property as might be involved in the arrangement. The business part being disposed of, then followed the feasting common on such occasions to most barbarous communities, and not uncommon in more highly refined stages of society; and the wedded pair went off upon their tour, to be royally fleeced by innkeepers and lodging-house cormorants, and to flaunt their happiness in the face of the public, by open entertainments wherever they went. The union which was thus completed implied none of the obligations exacted by Christianity. The gentleman was not required to cherish and protect the lady, nor the lady to love, honor, and obey the gentleman. It was a union for mutual convenience and satisfaction; sometimes inspired by a romantic passion, and sometimes with so little mutual knowledge beforehand, that, so far as happiness was concerned, it was a leap in the dark. The result, one way or the other, was a matter of blind chance; and the institution was logically adapted to meet any exigency that might arise out of so precarious a state of things. Where there were no duties, there could be no responsibility; and it was consistent with the

nature of the engagement that the marriage which hung so loosely might be easily thrown off. Both parties were at liberty to follow the bent of their own inclinations, and if they disagreed, they were free to separate, the lady's friends interfering, as before, merely to look after the settlements. The whole contract, from beginning to end, had at least the advantages of cheapness and simplicity. There was no necessity for the intervention of a Sir Cresswell Cresswell in matrimonial complications. All questions of that kind were quietly settled amongst the principals and their relatives, according to a code of domestic morals which, however shocking it may appear to us, was perfectly satisfactory to them. A still more singular custom is said to have prevailed in Ireland, where the lady was taken home to the house of her suitor for a year's trial, and if, at the end of that time, they found that they did not suit each other, she was restored to her family; nor did this episode in her history in the slightest degree damage her reputation or her prospects in life.

Although marriage was not binding against the wishes of the husband and wife, it was held sacred against invasion from without. Upon this point the Anglo-Saxon laws were precise and severe. Not only was the wife's paramour mulcted in pecuniary damages, the penalty being fixed by law, without having recourse to the assessment of a jury, but he was saddled with the additional responsibility of being compelled to provide the bereaved husband with another wife, and to pay all the expenses of the wedding. It is clear, also, that these laws, out of a rude sense of natural equity, recognized that class of cases which is known to us under the title of Breach of Promise. The Anglo-Saxons bought their wives: that is to say, they entered into a bargain with the relatives of the bride, which virtually constituted the marriage contract; and if they failed to fulfill the contract, or, in other words, to complete the marriage, they were liable by law to the payment of the sum for which they had stipulated, together with a further amount by way of compensation. Women before marriage were otherwise protected by stringent regulations, which compelled the early British *Lovelace* who, to use the words of one of Alfred's laws,

"deceived an unbetrothed woman," to "pay for her, and have her afterward to wife."

Domestic life under the Normans made a sensible advance in the way of in-door enjoyment: houses were more substantially and commodiously built, the resources of the *cuisine* were more skillfully cultivated, and the homes of the gentry began to develop the features of those comforts and luxuries which modern art has since brought somewhat nearer to perfection. No doubt every thing was still rough and rude, but the first conceptions were evidently there. The private dinner, contradistinguished from the dinner of form and etiquette, is a Norman introduction. Dinner was a public ceremony down to the close of the Anglo-Saxon rule. Banquets were invariably conducted in the one large, open, indiscriminate apartment. But the Normans knew the pleasure of a little occasional retirement, and of small entertainments, when they could enjoy themselves without being gazed at like wild beasts in a cage at feeding-time. Formerly the doors of the capacious hall were besieged by a hungry rabble of beggars and idlers, who watched the dishes as they were carried by the servants to and from the table, and often had the audacity to lay violent hands upon them. The Normans protected themselves against these swarms of clamorous vagrants by appointing a legion of door-keepers, armed with staves, to keep order at the entrance, and by building, for the first time in England, a room over the hall, where they could withdraw from the bustle, and dine in tranquillity. This room was reached, after the Swiss manner, by a staircase from without, and guarded by ushers below; and it appears to have been the earliest example amongst us of a floor raised above the ground-floor. When population was sparse, and land of comparatively little value, people spread out their buildings on the flat; but as population increased, and the surface became costly, space had to be obtained by other expedients. Necessity is the mother of invention. Driven to seek the means of dining in peace out of the roar of a turbulent publicity, the Normans conceived the grand idea of building a dining-room up a flight of stairs; and one of the most humorous cuts in Mr. Wright's volume represents a carousal in an attic of this novel descrip-

tion, taken from the Bayeux tapestry. Subsequent ages improved upon the precedent; and as house-room became more and more precious on the land, they built higher and higher into the air, amongst the stars and birds.

Progress in the art of cookery is generally considered significant of general progress in other and more important branches of civilization; and in this department the Normans were far in advance of their predecessors. When Duke William came to England, his forethought was not confined to warlike preparations. He took care that, however he might fare in the field, he should never be at a loss for a good dinner. He brought over his kitchen with him. This was in itself an evidence of high training in matters of taste. But it is only fair to observe, that if his artists transcended the Saxon cooks, they had an important advantage over them in the choice of materials which were seldom found upon Saxon tables, such as beef, mutton, veal, and pork. They appear also to have been familiar with the use of stoves and hot plates, prophetic of those more scientific structures which the illustrious Soyer plumed himself upon the glory of having established in the kitchen of the Reform Club; and there is reason to believe that they understood how to make pasties and pies, and other still more recondite and delectable dishes. At all events, we know that they could produce combinations which had the merit of being savory and palatable, and that the use of foreign flavors, with judgment and variety, was one of the resources which, all but unknown to the simpler Saxon, were at the command of the accomplished Norman. With the latter, as with the more enlightened gastronomic authorities of a later day, garlic was an indispensable agent, and we can only hope that he used it under proper restraints. We hear of roast hen seasoned in garlic sauce, and of fish cooked in wine and water, and served up with an elaborate and luxurious sauce, composed of parsley, sage, cost, ditany, wild thyme, and garlic, seasoned with pepper and salt; and the most robust gourmand could not desire a more energetic sample of culinary science than a roast goose served up with garlic sauce mixed with wine, or the green juice of grapes or crabs. The Normans evidently had a natural zest for good living; and we are mistaken if we do not gather from some

of the old illuminations and tapestries, that they were particular about having their meats put smoking upon the table, and that they even carried their sense of comfort (which is really an old Norman word) so far, as to indulge in the luxury of covers for their dishes. Yet, in the midst of these incontestable evidences of culture, they ate their meat with their fingers. They had not yet arrived at the decent convenience of a fork. For illustrations, the reader may be referred to Chaucer, especially to the description of the prioress, who was distinguished by the neatness with which she used her fingers in eating.

The distinction drawn by William of Malmesbury between the Anglo-Saxons and the Normans—that the former indulged in great feasts, and lived in mean houses, while the later built magnificent mansions, and ate moderately—is doubtless true. The Anglo-Saxons were enormous feeders; and the Normans consulted quality and relish rather than quantity. But the means of forming an accurate comparison do not exist, for it was not until cookery became resolved into an art that any details of its processes were recorded or preserved. It was late in the fourteenth century before culinary maxims came to be written, and receipts handed over in house-books or other depositories of domestic secrets. Mr. Wright has collected some bills of fare of that period, from which we learn that the dinner generally consisted of three courses, and that boar's head larded, beef and mutton, swan, pheasant, chickens, rabbits, teals, woodcocks, and snipes, independently of bruce, (a horrible mixture of pig's chitterlings, minced onions, white of eggs, and bread, out of which a fearful soup was distilled,) pork, mutton, and two or three other dishes entered into the plan of a single entertainment. At this time, the *cuisine* was obviously an object of paramount consideration; yet it is remarkable that while the Normans were making such strides in the science of dinner, their way of dining presented a humiliating contrast to the refinement of their cookery. Civilization was too busy among the stewpans and skillets to look after the manners of the people; and the table habits of the Normans were even coarser, all thing considered, than those of the Anglo-Saxons, whose stately formalities and cumbersome ceremonials imparted something of

an air of barbaric elevation to their usages. The Normans had all the rudeness of the previous age, without its earnestness. Their rules for behavior at table indicate plainly enough, in the suggestive shape of a long catalogue of prohibitions, the uncouth condition of society, in spite of its superficial gloss, down to the fourteenth and fifteenth centuries. Forks had not yet come into use, and nobody having hit upon the expedient of chop-sticks, meat was conveyed to the mouth by the fingers. This was unavoidable; and in order to make sure, as far as might be, of the cleanliness of the hand engaged in this delicate office, it was one of the maxims of good breeding that the same hand should never perform the function which is now consigned to the pocket-handkerchief—an article unknown in those times. The fact of laying an interdiction on one hand, implies, of course, the employment of the other. The American custom of expectoration prevailed so extensively amongst the Normans, that it was necessary to protect the board at which they sat from pollution by stringent regulations. Fortunately, in most cases, the floor which received the contents of water-basins, the dregs of wine-glasses, and other refuse, was slightly protected by a layer of rushes. The benches and seats, however, were exposed to all passing chances; and in an old French metrical code of politeness, quoted by Mr. Wright, people are prudentially advised to examine the seats before they sit down upon them. Some of the minor directions testify at once to the raw state of manners, and to the dawn of coming improvements. For example, you were forbidden to pick your teeth with your knife, or to offer the remains of your dish to another person, or to dip your meat in the salt-cellar, or to return food from your mouth to your plate; and symptoms of the more artificial modes that not long afterward came into vogue, may be detected in a code of instructions which warns you against the vulgarity of eating much cheese, or taking more than two or three nuts at a time upon your plate, or betraying fidgetiness at dinner, by such boorish tricks as playing with your knife, or twisting your napkin into knots, and which, above all things, admonishes you against getting intoxicated before dinner is over.

When we speak of dinners in these times, we must be understood to speak of



a meal which has no equivalent in the present day. Popular habits are so entirely altered that the same things can not be recognized by the same names; and we must enter into some details to render clear to the modern reader the habits of his ancestors in reference to the rites of the table.

They had two substantial meals in the day, dinner and supper, between which, there was an interval of eight hours. They were early risers, and began and finished their labor and their pleasures with the sun. In the Carolingian romances everybody is up at daybreak, and in most of the romances every body is in bed soon after supper, making no ceremony about it, but beginning to yawn and gape the moment they were sleepy, and separating at once for bed, after the fashion of the king and his court, in Chaucer's "*Squyere's Tale*." There is an old proverb which fixes the hours for the different meals:

"Lever à six, disner à dix,  
Souper à six, coucher à dix."

But there is an older monastic triplet, still familiarly remembered, which throws back all these operations an hour earlier:

"Lever à cinq, diner à neuf,  
Souper à cinq, coucher à neuf,  
Fait vivre d'ans nonante et neuf."

Dinner at nine (which prevailed for centuries before people became so lazy in their habits as to postpone the hour of *underne*, or *prandium*, to ten,) and supper at five, supply a land-mark of a day passed chiefly in athletic sports, chess, dice, eating, drinking, and praying. The ten o'clock dinner continued for a long period, and even so lately as the sixteenth century the general hour for dinner was eleven, as it is still in the northern parts of Germany.

Some obscurities which appear in Mr. Wright's work respecting the hours of meals, may here be usefully cleared up. At page one hundred and fifty-five, Mr. Wright, quoting the following lines, spoken by the Monk in Chaucer's *Schipmanne's Tale*:

"And let us dyne as soon as ye may,  
For by my chillindre it is prime of day,"

observes—"In the time of Chaucer, the

hour of *prime* appears to have been the usual dinner hour, which, perhaps, meant nine o'clock." At page two hundred and forty-eight, he says, that "In Chaucer's *Squyere's Tale*, the king's guests, after great feasting and carousing at night, sleep till 'prime large' in the morning—that is, till six o'clock—which is spoken of in a manner which evidently intimates that they had considerably overslept themselves." This latter interpretation of the word *prime* is the correct one.

The divisions of the ecclesiastical day, which were every where followed by Chaucer, and for each of which particular offices of devotion were appointed, consisted of *matins*, *prime*, *tierce*, *sext*, *none*, and *vespers*. There was another service, called *compline*, or *completorium*, to which no particular hour was assigned, it being directed to be observed just before retiring to rest. *Matins* began at midnight; *prime* was six o'clock in the morning; *tierce*, nine; *sext*, twelve; *none*, three; and *vespers*, six. Each of these terms covered the whole of the preceding interval; ignorance of which circumstance has, no doubt, occasioned much of the confusion that has arisen on this subject. Thus, as soon as *prime* was passed, the time would be reckoned as so much before *tierce*; and from mid-day, or *tierce*, it would be considered noon, or *none*, up to three o'clock. We have a curious illustration of this in the *Shepherd's Calendar*, where twelve o'clock is called noon, and three o'clock high noon. In the same way we frequently find in Chaucer, and other writers, the phrase "large prime," which is analogous to "full noon," and means *prime* arrived, or nearly so—at its full development—that is, six o'clock, or very close upon it.

In the lines quoted by Mr. Wright, "prime of day" is to be understood either in a figurative sense, which derives some color or probability from the introduction of the "day"—or literally as six o'clock. The latter interpretation is in some degree supported by the fact that on that morning the monk had risen earlier than usual, and might, therefore, be supposed to be ready for dinner before the regular hour. It is obvious that the regular dinner-hour had not then arrived, for some time elapses before the merchant and his wife go to dinner, the lady in the mean while calling him out of his

counting-house, and, after some talk together, going with him to hear mass, as was customary before breaking the fast.

It must be admitted, however, that it is not always easy to determine with certainty the meaning intended to be conveyed by the word *prime*, as it is employed by medieval writers. Even Chaucer, who is generally exact in his language, fluctuates occasionally between the poetical and the canonical uses of the word. We can keep to its strict definition only where the word is used in connection that will bear it. We constantly hear of the prime without reference to any particular hour, conveying sometimes a loose indication of an early hour of the day, and sometimes of the day full-blown. People are generally described as setting out to travel long before prime. In the *Canterbury Tales* the pilgrims set out in the spring of the morning, that is, about or soon after dawn, and it is past prime when they arrive at Deptford, which means past six, the hour of prime. Popularly, and poetically, prime means the dawn or spring of the day, as, in a similar sense, the prime time of the year

is spring, the French *printemps*. In adopting either interpretation, the reader of medieval literature must be governed entirely by the context.

Mr. Wright says that the hour of breakfast was very uncertain. We suspect that it is still more uncertain whether there was such a meal as breakfast at all. We have no evidence of any repast of that nature; and as it was the universal custom not to taste food till after mass had been heard, or other offices of devotion performed, and some indispensable household drudgery discharged, the presumption is that the first time of eating was the nine o'clock dinner. Beside, the preparation for dinner must have fully occupied all the available time on hand. There was not room for a preliminary entertainment; and the utmost we can suppose, in the way of refreshment before dinner, was some slight flavor, like the early cup of coffee of the French. But even this is mere conjecture, and in any case the term breakfast is wholly inapplicable.

[TO BE CONTINUED.]

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From Story of Waifs and Strays.

## THE WATER-DRINKER'S SONG.

I DRINK with a goodly company—  
With the sun that dips his beams,  
And quaffs in loving revelry  
The pure and sparkling streams;  
The laughing streams  
That catch his beams,  
To flash them back in light;  
The glittering streams  
Whose ripple gleams  
Like liquid diamonds bright.

I drink with a blooming company—  
With flowers of every hue,  
Whose fragrant lips take daily sips  
Of sweet and odoriferous dew;  
Of morning dew  
So fresh and new,  
That tenderly distills  
The balmy dew,  
So pure and true,  
That every petal fills.

I drink with a merry company—  
With every bird that sings,  
Carolling free a strain of glee,  
As he waves his airy wings—  
Wild soaring wings—  
And upward springs  
Filling the air with songs;  
The woodland rings,  
And echo flings  
The warbling notes along.

I drink with a noble company—  
With all the stately trees  
That spreads their leafy shade abroad,  
And flutter in the breeze;  
The playful breeze  
That loves to please  
My comrades great and small;  
I'll drink at ease  
Pure draughts with these—  
They're water-drinkers all.

From the Popular Science Review.

## ARTIFICIAL PRECIOUS STONES.

BY W. G. HOWGRAVE.

SINCE Sir Humphry Davy first discovered the diamond to be pure carbon, un-mixed with any other substance, various attempts have been made by chemists to produce it, and other precious stones, by artificial means; and it may not be uninteresting to glance at some of these essays, and to see how far they have been attended with success.

But little progress has as yet been made toward the discovery of the means of imitating the natural diamond, men of science having hitherto been baffled in all their efforts to find a substance capable of dissolving carbon, the chief constituent of that crystal; and indeed, until Despretz succeeded, by the agency of electricity, in actually producing minute diamonds, the manufacture of this precious stone seemed as chimerical as that of the philosopher's stone, so perseveringly sought after by the ancient alchemists. Despretz found, that by passing a powerful galvanic current through a point of charcoal over which a platinum wire was suspended, the charcoal was volatilized and deposited on the wire in the form of minute crystals, which, on examination under the microscope, proved to be true diamonds. Since the discovery, no further advance has been made toward the solution of this interesting problem.

The search after the diamond having proved so unsatisfactory in its results, attention was directed to a class of stones almost as simple in their composition, going under the generic name of *corundum*. In order to understand the experiments that were made, and the difficulties attending them, it is necessary that a clear idea should be obtained of the composition and distinctive characteristics of the stones belonging to this class. I will, therefore, in as few words as possible, give a description of their nature and properties.

The ruby, sapphire, oriental topaz, and several other precious stones, are all merely colored varieties of a mineral called corundum, or white sapphire, the composition of which was stated by Chenevix to be alumina, mixed with a small proportion of silica and oxide of iron. Dr. Thomas Muir and others proved, however, that it was pure alumina, the silica found by Chenevix being abraded from the substance in which the stones were imbedded. All the varieties of corundum crystallize in six-sided prisms, and have the curious property of double refraction; that is, causing every thing that is looked at through them to appear double. Alumina, the oxyd of the metal aluminium, now coming into such frequent use in the manufacture of articles of jewelry, etc., was, until the invention of the oxyhydrogen blowpipe, supposed to be, like carbon, infusible by any degree of heat. In 1837, however, M. Gaudin, who had given much attention to the effects produced by this then newly-invented means of generating heat on various metallic oxyds formerly thought unsusceptible of fusion, attempted with some success to convert, by its aid, the apparently infusible alumina into crystals similar to the ruby and the other oriental stones. He proceeded by submitting to the action of the blowpipe a mixture of alum (sulphate of alumina and of potash) and chromate of potash, which he placed in a cavity of animal charcoal. In this manner he obtained small portions of melted alumina, having the color and hardness of the ruby, but which could be easily distinguished from it by their imperfect transparence, and by their not possessing the property of double refraction. All subsequent attempts to obtain crystals of alumina, colored like the precious oriental stones, have failed in a similar manner; and this has been accounted for by the discovery only lately that

the color of these stones is not due to a metallic oxyd, as had been always supposed, but to the presence of some organic coloring matter. The application of this discovery may bring us nearer than we have ever yet been to the invention of a mode of producing artificially these rare gems.

The next step in this direction was made by the manager of a manufactory of Sevres porcelain, named Ebelmen, who, ten years after M. Gaudin's experiments, found out a way of obtaining crystals of corundum, but of such minute proportions as to be of no practical use. He first discovered that boracic acid, which had been hitherto supposed to be absolutely fixed, could be evaporated by the intense heat of the porcelain ovens; upon this it occurred to him that by dissolving alumina in boracic acid, which could be done by heat, and then evaporating the liquid, it would be possible to obtain crystals resembling the oriental stones; and it was found, in fact, that by exposing a platinum capsule containing such a mixture to the heat of the porcelain oven for a considerable time, the boracic acid was evaporated, and a number of little shining crystals of alumina having the properties and appearance of small precious stones were left adhering to the capsule, but adhering so tightly that it was found impossible to detach them entire.

One other experiment is worthy of notice before proceeding to the only one which had any practical result; it is that of M. de Senarmont, who obtained similar microscopic crystals by exposing hydrate of alumina, or alumina combined with water, to a great heat, which caused the water to evaporate, and left the crystals at the bottom of the glass tubes in which the experiment was conducted.

The perseverance of M. Gaudin, who appears never to have abandoned the idea of manufacturing precious stones, enabled him, in 1857, to present to the Academy of Sciences several white sapphires produced by a very simple process, and of sufficient size to be used as jewels in watches.

The following is the mode of procedure by which M. Gaudin succeeded in producing these crystals:

In a crucible lined with animal charcoal are placed equal parts of alum and sulphate of potash, previously calcined to expel the water. With this mixture the

crucible is half filled; it is then filled up to the top with animal charcoal, the lid is put on and cemented in its place with clay, and it is then exposed in a furnace, and kept at a white heat for a quarter of an hour. The heat and the reducing power of the charcoal cause the formation of sulphuret of potassium, which fuses and dissolves the alumina; the continued action of the heat partly evaporates this sulphuret of potassium, and the alumina separates in the form of little crystals. On opening the crucible, a black mass, sparkling with brilliant points, is found in it, which consists of sulphuret of potassium mixed with crystals of alumina. This mass is afterward placed in diluted nitro-hydrochloric acid, which dissolves the sulphuret, and lets fall the crystals of alumina to the bottom of the vessel, where they appear as a coarse powder, and seen through a microscope, have an exact resemblance in form to the natural precious stones. By using a larger crucible, and exposing it to the action of the fire for a longer period, M. Gaudin produced crystals of much greater dimensions, which, upon examination, proved to be true white sapphires, and were even superior in hardness to the rubies ordinarily used for the jeweling of watches. He endeavored to produce colored crystals by the addition of metallic oxyds, but found that these were invariably reduced into metals by the action of the charcoal. The successful result of this experiment encourages us to hope that at a future period M. Gaudin, or some one else possessed of his indomitable perseverance, may discover some substance capable of dissolving carbon in a similar manner to that in which sulphuret of potassium has been found to dissolve alumina, by which the problem of the artificial production of that beautiful and valuable stone, the diamond, will at length be solved.

Although not belonging strictly to the subject of the artificial production of precious stones, it will not, perhaps, be thought inappropriate to notice some experiments undertaken by Messrs. Deville and Wohler, which resulted in the discovery of a crystal strongly resembling the diamond in its hardness and properties, although of a different composition. This crystal is that of a substance called boron, which attracted the attention of Messrs. Deville and Wohler on account of its resemblance to carbon. It occurred to



these gentlemen that a substance having such a great similarity to the element of which the diamond is composed would, in all probability, if crystallized, have some characteristics in common with that gem. They, therefore, set to work to find some process which would enable them to reduce it to the crystalline form.

Boron is only found in nature in combination with oxygen, as boracic acid, and in union with soda as borax; and it had, up to this time, been obtained from these combinations only in the form of a brownish-green powder, insoluble in water, possessing many of the properties of carbon. It was reserved for the two chemists whose names are given above to produce it in a form hitherto unknown, by the following process:

In a crucible lined with animal charcoal are placed eighty grains of aluminium and one hundred grains of boracic acid; this crucible is then exposed for five hours to an intense heat, which causes a portion of the boracic acid to part with its oxygen to the aluminium. After it has been taken from the furnace and allowed to cool, it is found to contain a sort of glass composed of the remainder of the boracic acid and of the alumina formed during the process of heating, and underneath this a gray metallic mass sparkling with crystals. This mass consists merely of boron imbedded in aluminium. To separate the boron, the mass is plunged into

boiling caustic soda, which dissolves the aluminium, and is afterward treated with hydrochloric acid, to remove all traces of iron, and with a mixture of nitrate and hydrofluoric acids, to get rid of any silicon that may have been left by the soda. After all these processes have been gone through, the boron remains alone.

An examination of the boron obtained in this way shows what a great analogy exists between it and carbon, which, as every one knows, is found in three forms: uncrystallized in charcoal; semi-crystallized in plumbago; and crystallized in the diamond. Similarly the boron resulting from the above experiment is found to exist in three forms, namely, in black flakes almost as hard as the diamond; in brilliant prismatic crystals less hard than the former variety; and in small, beautifully-formed reddish crystals, having a great resemblance to the diamond. These crystals are as hard as the diamond itself, and may, in the course of time, should their manufacture be brought to perfection, supersede that stone in many of its uses, such as cutting and polishing precious stones, forming jewels in watches, etc.; and thus, although from their being unknown in nature they can not be considered precious stones, the discovery of these boron diamonds may prove of more practical value than all the attempts at the artificial production of the real diamond.

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From Chambers's Journal.

## THE PYTHON AND PYTHONESS.

UNLESS the historians of ancient Rome are guilty of gross Munchausenism, the serpent race have greatly degenerated since one of their tribe staid the march of the legions of Regulus on the banks of the Bagrada, taxing all the resources of the general, and all the courage of his troops, and remaining, spite of defeat and death, master of the field of battle, by poisoning the waters with its blood, and

polluting the air with its decaying flesh. This hero is said to have measured a hundred and twenty feet in length, and was evidently allied to the elephant-crushing reptiles that served our old friend Sinbad's feathered giant for a meal. Compared to such monsters, the pythons of modern times are insignificant creatures, and yet, as foes, they are by no means to be despised. One of them was nearly

bringing the destructive career of the mighty hunter, Gordon Cumming, to an abrupt conclusion. While tracking game in Southern Africa, that famous sportsman saw an old rock-snake gliding beneath a mass of rocks, and was seized with a desire to add its skin to his wealth of trophies, but was somewhat puzzled how to obtain it without spoiling its beauty. After a moment's consideration, he cut a tough stick, about eight feet long, and advanced toward his wished-for prize. Seizing it by the tail, he pulled away with a will, but the harder he pulled, the closer the python drew his folds together, and he was fain to call his African follower to his assistance. The two plied their utmost strength, and tugged so vigorously, that the serpent, unable any longer to endure such impertinence, suddenly relaxed its coils, faced its foes, and sprang at them open-mouthed, its sharp teeth just missing the naked legs of the bold Scotchman. Taken aback by this unexpected attack, the assailants let go their hold, and the python at once made for a place of safety; to reach this, it had to cross a muddy pool, and, in attempting the passage, was brought to a stand by a shower of blows, and belabored, till it ceased to show any signs of life. Its conqueror then slung it to a tree, and appropriated its skin, an operation under which the serpent seemed to revive, and caused considerable trouble to its astonished flayers. The skin measured fourteen feet; but this was by no means an extraordinary specimen. The skeleton of a python in the Museum of the Royal College of Surgeons exceeds it by two feet and a half; a reticulated python, (the anaconda of Eastern romance,) presented to Sir Emerson Tennent in Ceylon, measured seventeen feet, and a much larger one crossed his path near Puscivala. It is said sometimes to attain a length of upward of thirty feet.

This species preys upon hog-deer, and Boë says the Asiatic python only attacks the smaller quadrupeds; but instances are not wanting of its assaulting even men upon favorable opportunities. One of the crew of a Malay proa, that anchored off the Isle of Celebes, went ashore to look for betel-nuts. Tired out with his search, he lay down to sleep at the foot of a large tree. The sailors in the proa were suddenly startled by a succession of screams, and landed in all haste, to find their com-

rade in the embraces of a huge python. The serpent soon fell a victim to their united attack, but their unlucky shipmate was quite dead, his head, neck, breast, and thighs being completely crushed by the constricting folds, while his wrist bore the marks of the teeth of his murderer. Looking upon one of these reptiles, it seems almost incredible that the python should be able to swallow the bulky victims he loves to prey upon; but nature has provided him with such an elastic frame, and such extraordinary digestive powers, that it is hardly necessary to believe, with the Cingalese, that he assists the process of deglutition by drawing himself through a narrow aperture between two trees. Our readers will be better able to understand the python's mode of operations by the following description of one taking his meal at the Zoological Gardens, by a writer in the *Quarterly Review*. A rabbit, all unwitting of his danger, is placed in the den by the keeper, and amuses himself by examining his new domicile, without troubling himself about the regular tenant. "Silently the rock-snake glides over the stones, uncurling his huge folds, which, like a cable, seem to move as though by some unseen agency from without, looks for an instant upon his unconscious victim, and the next has twisted him with his cruel jaws. His constricting folds are twisted as swiftly as a whip-lash round his shrieking prey, and for ten minutes more the snake lies still, maintaining his mortal knot until his prey is dead, when, seizing him by the ears, he draws him through his vice-like grasp, crushing every bone, and elongating the body, preparatory to devouring it. The boa and the rock-snake always swallow their prey head-foremost. How is that neck and delicate head to make room for that bulky rabbit? thinks the spectator. Presently he sees the jaws gape, and slowly the reptile draws himself over, rather than swallows, the prey, as you draw a stocking upon your leg. The huge lump descends lower and lower beneath the speckled scales, which seem to stare with distension, and the monster coils himself once more to digest his meal in quiet." Such a dinner will satisfy him for a long time; a goat, that occupied nearly two hours and a half in the above process, served a great python on board H.M.S. *Alceste* for a month. Glutton as he is,

the python, like most reptiles, is capable of bearing abstinence. Mr. Crisp dissected one that had fasted ten months without any apparent diminution in size, and another belonging to the Zoölogical Society lived for twenty two months without tasting food.

Despite its bulk, the python does not lack activity. Sir E. Belcher, when commanding in the Philippine Archipelago, had one presented to him which measured sixteen feet in length. One day, just as it had drawn its folds round an unfortunate chicken, a tender-hearted looker-on entreated that the fowl's life might be spared. The ship's surgeon introduced his arm in order to release the bird, but immediately that he did so, the incensed reptile threw back his head, unwound his coils, and darting at the intruder, seized the ball of his thumb with his sharp teeth, and the rash doctor found it no easy task to extricate himself from their hold. So, with a sudden dash from its lair in the tall tropical vegetation, the python strikes down its prey ere it presses the breath of life out with its deadly folds. Coiled round some forest giant, it lies in wait above the waters of its native region, ready to dart down upon any animal seeking to assuage its thirst. In the better known species, the rudimentary limbs, for which the python is remarkable, are very small; but Mr. Russell, in his work on Indian serpents, mentions a python furnished with spurs as large as those of a partridge, which served it as weapons of offense.

The python is found in Africa, New-Holland, Ceylon, Borneo, Hindustan, and various parts of the Asiatic continent, and is distinguished from its American relative, the boa, by its inter-maxillary teeth, and having the scales beneath the tail divided into two rows, or composed of double instead of single plates. The Javan Ular-sawa, or serpent of the rice-fields, one of the largest, if not the largest of its kind, has an extensive habitat, being found from the western coast of Africa, through the interior of Asia, as far east as China and Java. The *Python Sebae*, the Fetich-snake of Western Africa, boasts its temples, its priests, and its votive maidens, its offerings of delicate meats, fine apparel, and valuable jewels; while the Natal rock-snake, (*P. Natalensis*), although not actually worshipped,

bears a charmed life as far as the natives are concerned, from a belief that any one venturing to maltreat the reptile will be sure to suffer for it sooner or later. The rock-python (*P. molurus*) is the Regent's Park heroine of a hundred eggs, the topic of conversation in all naturalist circles. This interesting lady-serpent took up her abode in the Zoölogical Gardens eleven years ago, and may possibly be the identical python which, out of temper at being removed from the old-fashioned box in which its kind were wont to be cabined and confined, to its present roomier quarters, tested the strength of the plate-glass by dashing furiously at an innocent spectator, and disabling itself for months. The pythoness has certainly borne captivity uncommonly well, growing, if not in beauty, in size and strength, her durance vile being rendered less irksome by the loving attention of her lesser half, a python, small indeed, compared to herself, but by no means of contemptible proportions.

At the beginning of the present year, the circumference of the pythoness increased to such a degree as to excite the alarm of her keeper, who, finding that she had not, like one of her tribe, swallowed a blanket, or, like another, devoured her companion, was puzzled to account for the alteration in the appearance of his charge; and it was only a few days before the mystery was satisfactorily solved that the real cause was suspected. On the fifteenth of January, it was discovered that the pythoness had excluded rather more than a hundred dirty-white, leathery-looking eggs. The effect of this maternal effort was very different to what might reasonably have been expected; instead of gorging four or eight rabbits at a meal, as had been her custom, she spurned all food that was proffered, although she continued to drink freely; while, singularly enough, the male python, hitherto contented to dine on peas, made up in some measure for his lady's want of appetite, and disqualified himself for enrollment in the Vegetarian Society. Meantime, the pythoness coiled herself above her eggs, covering nearly the whole of them, and has ever since been most assiduous in the performance of her incubatory duties; not with good temper, it must owned, for she had not only threatened her keeper for offering to disturb her, but repulsed even the affectionate

approaches of her consort. Up to the time at which we write, her fast has remained unbroken without any signs of attenuation.

The present is not the first instance of a python incubating her eggs in captivity. In 1841, one at the Jardin des Plantes in Paris, after two months' labor, hatched eight eggs out of fifteen. Professor Valenciennes then ascertained that the heat of the incubatory serpent was ten or twelve degrees centigrade above the temperature of surrounding objects. Careful experiments at the Zoölogical Gardens confirm those of the Professor. On the twelfth of February, the temperature between the coils of the pythoness was very little more than six degrees (Fahrenheit) above that of the male python, inhabiting the same compartment, and subject to exactly the same external influences; eighteen days after, there was a difference of no less than twenty degrees, the heat of the incubating female having increased from eighty-one degrees

six minutes to ninety-six degrees. As might have been expected, this interesting event has excited some discussion, the majority of modern naturalists being in accord with the authority who has so lately declared that "no reptile is known to hatch its eggs." Mr. Waterton has not hesitated to declare such a proceeding "an impossible process. Dame Nature can not sanction it. There is nothing in the composition of a snake that can produce it. The body of a snake is hard, and solid, and scaly, qualities quite useless in hatching eggs, which require warmth, and smoothness, and pliability when birds sit on them; and heat and dryness when hatched by the artificial warmth of the atmosphere." Time will show how far this dictum is justified; we certainly shall not be greatly surprised if the non-incubatory theory is overthrown, remembering that the impossibilities of one generation of naturalists have, before this, become the familiar facts of their successors.

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From the London Review.

## THE NEAR AND THE HEAVENLY HORIZONS.

THIS is "poetry in prose" in very deed. We have seldom met with a more delicious book. In the word-pictures of *The Near Horizons*, the amiable authoress carries a perfect witchery in her pencil. She makes us see in her own light, and feel as she feels. A thousand of the things she tells of, we have seen and felt, again and again, but we never thought of describing them—touching appeals to our natural sense of the beautiful, and awakening almost *recollections* of what is yet so general and common, that no particular case is remembered. We never thought that these incidents in manners, and little bits of scenery, and little things in those little bits, were ever so to strike

the eye again, and fetch up feelings one thought to be hopelessly gone. Here all nature, not the vast and combined alone, but the minute details, are all "retouched again." It is the next best thing to actual walks and visits with the painter, thus to live over again these pictured scenes of what is true and beautiful in all lands, and therefore always all our own. We could crowd our page with illustrations of the power of her pen. Take this:

"How charming a village is! How charming those fountains with wooden basins—if the village be rich with stone ones, the water trickling down and running over! In the evening, the cows come heavily by, drink slowly, and return to their stalls, scattering sparkling drops from their cool, wet muzzles. The pleasant smell of hay is wafted from the open barn. Women come and go, and wash vegetables at

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\* *The Near and the Heavenly Horizons*. By Madame De GASPARI. Hamilton. 1861.



the fountain. Men seated before their houses sharpen their scythes and fill the air with metallic notes. Children sing and dabble, and heap up handfuls of fine sand. Hens seek their food with that little, anxious, monotonous cluck, that protest of a good housewife who sighs each time she puts by a millet-seed. Cocks, proudly thrown back on their tails, send forth a warlike cry, which gets repeated by all the sultans near."

Again:

"There is one exquisite hour in an oak-wood—that particular moment in spring when the underwood is all green, while the old trees are not yet fully out. At their feet there is an inveterate entanglement of honeysuckle, elderbush, and clematis, all vigorous, full-grown, in the first glory of their first leaves, with tall plants intermingled; while above, at a great height, spreads the light dome of the mighty trees. Look where you will, it is luminous. There is above you rather a green cloud, an emerald transparency, than decided verdure. The very atmosphere is green. Green seems floating in the air, blending with the blue of the sky. There are none of the intense tones of summer; none of the warm coloring, the broad, massive touches of July; every thing is distinct, every where there is shade; and against the soft green of the young foliage you can trace the bold outline of the dark trunks and the gnarled branches of the oaks."

But Madame de Gasparin is as clever in depicting the heart in its nicer shades of grief and joy as in picturing the outer world. It is not an art she possesses, except so far as the art of expression is concerned; hers is a gift. She discerns the spirit of her subjects; it is the dissection of the living, without cruelty or evil curiosity. She puts her finger on the pulsations of the living heart, and tells its beatings. It is a joyous thing to weep with her, as well as to bound with her in exultations. We feel that she has told us the truth, and that it is which impresses and pleases.

Take as a specimen the following picture of a sick-chamber:

"There was an unnatural stillness in the air; in that quiet room, entered and left so noiselessly, where meals were taken at regular hours; where in the evenings the father sat reading to himself by the lamp-light, while the mother sewed, and there brooded a deeper sadness, a more intense woe than bursts of weeping ever expressed.

"The darkest despairs are the most silent; and it was one of these that the heart of Rose concealed; no disappointed love, no foolish hopes deceived. No; but let her thoughts turn

where they would, from her first days to her last, she could not find one happy moment—not one. And, now, where was she going? What would be her fate in the presence of that God from whom she had asked nothing, had received nothing? In her hours of pride, indeed, she tried to contend with him; but her daring only left her more desolate, the darkness thickened, she was appalled at herself.

"One evening it was getting dark; the wind was driving the snow-showers along the desolate streets; you heard nothing except the wooden shoes of some belated frequenter of the public-house. It was cold, gloomy; the lamp was not yet lighted; the father was musing, his back against the stove; the mother, with her elbow resting on the window, watched the falling flakes, one side of her face whitened by the reflection. Rose was motionless in the large bed, breathing unevenly; she seemed dozing."

A scene of tender mutual forgiveness follows, which we are to attribute to the manifestation of Divine forgiveness, although that is not made so clear as we could wish.

"But as for her, an ineffable rapture filled her heart. Heaven awaited her; earth, before relinquishing, lavished on her all its treasures. In an instant, like one who gleans in haste, her hand snatched all the richest sheaves. A moment is a thousand years to one about to enter on eternal day. She had reaped all, she regretted nothing. Of the love of her father and her mother nothing henceforth could deprive her; the love of her God shone round about her. In this glory she departed.

"The Lord has sudden unfoldings, such as these, for souls long closed. For beaten-down stalks he has looks which ripen into golden harvests. He has warm rains for parched-up grounds. He has royal compassions at which the hosts of angels break into hallelujahs of praise that ring from heaven to heaven."

We wish we could quote a beautiful paper, "Dovecot," a picture of poverty fighting against pauperism, and determined to win. Our authoress rightly says: "All the charity in the world never yet made up for work. More than bread, more than help of any kind, the old upholsterer craved for occupation, craved to work at his trade." A favorite old arm-chair is put into his hands. "The old upholsterer's face lit up; in two seconds he grew ten years younger; his forehead lost its wrinkles; his chest expanded; he rubbed his hands; what the sympathy of the wife, the charity of the benevolent, never could have done, work—his work—did. His status returned; his youth, his vigor, his prospects."

The brighter part, however, is *The Heavenly Horizons*, full also of true poetry and freshness of reasoning, which, by the play of fancy which pervades it, becomes interesting as well as instructive. The chapter on "The Authority on which I Rest" is of this character :

"The Bible contains mysteries; God forbid that I should seek to lift the veil! The Bible contains deep sayings; these belong to the discerning and wise. The Bible uses transparent images; simple parables spoken to fishermen, to shepherds; these are for us. For us too the natural language, the positive meaning, the words taken for what they are worth! Ah! if the Jews had only received in their literal sense, as they were presented to them in their revealing details, the poverty of Jesus, the thirty

pieces of silver, the lots cast for the coat, the rich man's grave, and so many others."

Pleasant as is the perusal of such a book as this, its chief *value* is to those Christians who can supply what is wanting. This beautiful book supposes you know much experimentally of coming to the Saviour, and of the life of faith by spiritual union with the glorified Head of the Church. To those unlearned in the way of faith, we fear there is some danger of its leaving them too near the regions of religious sentimentality; while to the spiritual by renewal of heart, of refined sentiments, and intellectual culture, it will prove a fountain of joy for earth's sorrows, by leading to the throne of God and of the Lamb in heaven.

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From the Popular Science Review.

## T H E H U M A N H E A R T .

BY ISAAC ASHE, B.A., T.C.D., L.M.

THE ingenuity and yet simplicity of contrivance which the Creator so abundantly displays in every department of nature is, perhaps, nowhere so highly manifested as when he designs to provide for the existence and enjoyment of a sentient and conscious being; and doubtless it is to be anticipated, that as his creatures rise in the scale of conscious beings, so much the more abundant care would be bestowed in insuring the welfare of their more highly endowed and more exquisitely sensitive frames. Accordingly, we have in Man the head of the terrestrial creation, the greatest amount and the most exquisite adaptation of contrivance, the highest evidence of design, and not only so, but of the beneficence and goodness of the Designer, and of his intention to render the human body in every respect a suitable and pleasant abode for the rational spirit destined for a time to inhabit it.

Hence, although there must always

exist a considerable repugnance at first to the investigation of the structure of the body, yet, when this is overcome by the force of habit and professional duty, the beauties which are revealed in that structure are such as to fill with delight the thinking and intelligent mind which finds pleasure in witnessing the exquisite adaptation of means to the end which is to be accomplished.

The organ whose structure we have selected as the subject of the present sketch is the heart—one which has always struck us as a masterpiece of ingenious design, perhaps, not to be exceeded by any part of the body, even the eye or ear, and one whose beauties are less generally known than those of either of these organs.

The heart, then, as all our readers know, is the principal means by which the vital fluid, the blood, is sent to every part of the body by a process of pumping quite analogous to what is seen in an

ordinary forcing-pump, though of much more delicate and perfect construction; indeed, it seems highly probable that the principle of the forcing-pump was borrowed from this organ.

Now, what are the objects which have to be accomplished in this circulation of the blood, and how is the heart adapted to their attainment; and what are the contrivances for the avoidance of those dangers which would, mechanically, be most likely to occur?

First of all, a supply of nourishment has to be furnished to every part of the body, no structure or organ being omitted; secondly, waste material has to be taken up and removed from the system after it has served its purposes there; and both these objects are accomplished by the circulating vital fluid, the first by a transudation of the watery part of the blood through the pores of the walls of those minute capillaries which ramify through every portion of the body, and which are too minute to permit the red corpuscles of the blood to escape, the function of these latter apparently being to vivify the watery portion or serum of the blood, which is the nutrient fluid: while the second of the objects above mentioned is attained by the blood circulating through various organs in the body, whose special function it is to remove used-up material by peculiar vital processes, of which nothing farther is known than this, that they are effected by the same transudation of serum through the walls of the capillaries, or, in the case of the lungs, with which we are at present most concerned, by a similar passage of carbonic acid and water out through the walls of the air-cells of which the lungs are composed, while oxygen at the same time passes in by a similar process.

Through the other secreting and excreting organs, the blood, or a portion at least of it, passes in the course of the general circulation of the body, but through the lungs the whole of it passes by a separate circulation quite distinct from that of the body, and called the pulmonary circulation. Since the heart, then, has to effect two distinct circulations, it is necessary that it should be in effect double; and such is, in fact, the case, so that physiologically there are two quite distinct hearts in man and the higher animals, although anatomically the two are joined together. There are, there-

fore, four chambers, two for receiving the blood, the first on its return from the body, the second on its return from the lungs—these are called “auricles”—and two for expelling the blood through the circulation, the first through the pulmonary circulation, and the second through the systemic circulation, or that of the body; these chambers are called “ventricles.” In the heart of fishes there are but two chambers, one auricle and one ventricle; in Batrachia, there are three chambers, two auricles and a ventricle; while in reptiles the ventricle has a partition which is imperfect in the lower classes, so that their heart has virtually only three cavities, but which becomes perfect in the crocodiles, so that theirs, like that of birds and mammalia, is composed of four cavities.

This four-chambered heart is a muscle, and acts by means of muscular force. What the agent may be which irritates this muscle and so causes it to contract, has been a subject of much discussion; but it is now generally considered that this agent is oxygen, which is received into the blood in the lungs, and stimulates the muscular contractility of the heart through the nerves of the organ. This muscular action of the heart is almost entirely beyond the control of the will, as indeed are all the vital actions of the body; yet instances have been related of persons who were able to stop the heart's action at will, and in one case this experiment was carried too far, and the individual died by the mere act of his own will. On the other hand, the heart will continue its regular pulsations for a long time after its removal from the body, and of course the death of the animal; and the lower the creature in the scale of creation, the longer will this action continue; so that the heart of a sturgeon will continue to beat as long as twenty-four hours after its removal from the creature.

Through this four-chambered heart, then, the blood must pass in one direction only, and not indiscriminately backwards or forwards; and to effect this there is a whole series of beautiful contrivances. To begin with the first chamber, namely, the right auricle. As this chamber is dilating after each contraction, it receives the blood which has been collected from all parts of the body into two enormous veins, and it also receives blood from some small veins which come

from the substance of the heart itself—for this organ has, of course, to supply blood to nourish its own muscular substance—but some force is wanting besides the mere dilatation of the auricle in order to insure its being properly filled with blood, especially in the case of the vein, which, coming from the lower parts of the body, has to send its blood against the force of gravity, and accordingly these two large veins are provided with muscular coats for a short distance back from the auricle. There is a large opening between this auricle and the second chamber, namely, the right ventricle, an opening large enough to admit the tops of three fingers, and some of the blood flows through this opening at once, but the greater part of it fills the auricle which will contain about two ounces. It fills slowly, but the moment it is full it makes an extremely quick contraction, by which it forces nearly the whole of the blood through the opening into the right ventricle. Quick as this contraction is, occupying about the eighth part of a second, it can be observed to begin where the great veins enter the auricle, and to extend gradually over to the opening into the ventricle; and this is just what is necessary to insure the driving of the blood gradually from behind forward into the ventricle, and the blood can not return up the veins because the muscular contraction of their coats prevents it, in addition to which there is a most beautiful set of valves in the inside of the veins which only open toward the heart, so that the blood can pass that way, but not backward. In the smaller veins of the body a pair of these valves can be seen at about every quarter inch, but they do not exist in the very small veins, nor in the great vein which comes into the right auricle from above; for, under ordinary circumstances, the blood is prevented from flowing backward in this by the force of gravity, and under extraordinary circumstances it is sometimes necessary that it should flow back through it, as will be explained shortly. The walls of the auricle are very smooth, so as to allow the blood to pass freely along them, and they are not very strong, as they only have to force the blood into the next chamber, which is gradually opening to receive it. As soon as this chamber, the right ventricle, is full, it also contracts, but much more slowly than the auricle, since it has to over-

come much greater resistance, for it has to force the blood along the pulmonary artery, and through all the capillary vessels of the air-cells of the lungs. And to effect this, its walls are very strong and furnished with several muscular bands inside, which contract at the same time that the walls are contracting, and so both help the wall, as it were, and also by becoming thicker in consequence of their shortening, fill up the whole cavity of the ventricle, so that it completely empties itself of blood, which the auricle scarcely does.

There are, however, none of these muscular bands just at the mouth of the artery, lest they should cause obstruction to the free passage of the blood. But why does not the contraction of the ventricle force back the blood into the auricle which is just then dilating again? Because, inside the ventricle, and over the opening between the two chambers, there are three thin membranous valves which only open into the ventricle, but the moment the blood is driven against them by the ventricle beginning to contract, they are closed by its impetus, and, fitting accurately, completely prevent all regurgitation into the auricle.

The bases of these valves are connected with the opening all round, and their sides are partially connected with each other, so as to close the opening completely. But there would be considerable danger that the great force with which the ventricle contracts would drive the tips of these valves which are in the center when they close the opening, completely through into the auricle, and so allow regurgitation to take place notwithstanding, and the whole machinery to become hopelessly disorganized. To prevent this terrible accident, which would cause instant death, there are a large number of very fine but very strong branching tendons attached all over these valves on the side next the ventricle, but principally along their margins, where there is the greatest danger of their being forced through, and the other ends of these tendons are united to the ends of muscular bands like those which help the contraction of the ventricle, the other ends of these bands being fastened to the wall of the ventricle—so that they actually hold the valves like ropes, and so prevent them going through into the auricle; of course, these ropes, so to call them, must shorten



as the ventricle contracts, and its wall comes near the opening, since otherwise they would not be tight, and would consequently be useless, and this is accomplished by the muscular bands contracting at the same instant with the ventricle itself, so that the tendinous threads are always kept tight, and the muscular bands relax themselves, and consequently lengthen, as the ventricle dilates, for, otherwise, they would tear the valves completely off their attachments. Thus we see the advantage of having these checks on the valves composed partly of tendon, which will not shorten nor lengthen, and partly of muscle, which will do so; for if they were all of tendon, they would not contract nor remain tight, and the valves would be forced through; and if they were altogether of muscle, the contraction would be too great, and would draw the valve inward, so that they could not completely close, and the blood would regurgitate.

There is, however, another very beautiful arrangement here to prevent the blood being forced in too great quantity into the delicate vessels of the lungs during violent exertions, as this would rupture them—a result which sometimes takes place in spite of the contrivance to avoid it, and hence we sometimes see runners and other spit blood after violent exertion.

This contrivance consists in having one of the muscular bands, mentioned above, very long, but placed nearly opposite the valves, so that though there is very little tendon attached to it, yet during a contraction of the ventricle the other end is brought so close to the valves that it does not draw them inward nor prevent their complete closure; but if the ventricle should ever become too full, so as to endanger the lungs, then the other end of this muscle, being attached just opposite the valves, is drawn away a long distance from them, so that when this muscular band contracts it does draw the valves inward, and allows the blood to regurgitate into the auricle, and from it into the great vein which comes from the upper part of the body, and so the pressure is taken off the lungs. Hence it is that the veins of the neck and face become distended during exertion; and the same thing is seen to take place during a prolonged note in singing, for then the blood does not pass so freely through the lungs, and this safety-valve action, as it is called, is brought into play. It was to this we referred

when we said above, that, under extraordinary circumstances, valves in the upper great vein would not only be useless, but even injurious, since it was necessary that regurgitation should occasionally take place.

The right ventricle, then, as it contracts, forces the blood into the pulmonary artery, a large vessel which soon divides into two branches, one going to each lung. This vessel, like all other large arteries, has elastic walls, which yield under the impulse of the blood from the heart, and immediately afterward contract again, as all elastic tubes would do after dilating; and thus they, as it were, store up the force of the heart's contraction, and transmit it along the whole length of the vessel for the purpose of forcing the blood on throughout. In addition to this, their yielding prevents their being torn by the force with which the blood is impelled into them by each contraction of the ventricle. Here, again, we have a beautiful arrangement to prevent the blood going back into the ventricle under the force with which the elastic artery contracts again. Three semi-circular or semi-lunar folds of membrane, strengthened by fibrous structure, form valves, which are attached by their semi-circular edges to the walls of the artery, while their straight edges look toward the center. They are so loosely attached that they can be pouched out by the blood when driven back against them, and so driven out from the sides of the artery against which they otherwise lie, and be made to stop the opening. But it would be impossible to have muscular bands and tendinous cords inside the artery to hold these valves from going through into the ventricle, for such an arrangement would hinder the blood flowing freely along the artery, and accordingly we have other contrivances to prevent such an accident in this case. In the first place, from the shape of the valves, and their being attached by so much of their margin to the artery, there is less liability to the occurrence of such an accident; and, secondly, as the fleshy mass of the contracted ventricle lies close up under these valves, it gives them support for an instant, until the blood has passed on, and the artery just beyond the valves is once more empty. Since these valves, however, lie so close along the walls of the artery, and are attached by so large a margin to it, another danger is

thus incurred—namely, that the blood which has to shut these valves should altogether fail to get between them and the walls of the artery, and so should keep them open instead of shutting them. This danger is avoided by the elasticity of the artery, for, as the vessel dilates under the shock of the blood, it is evident that it will form pouches behind the valves, into which the blood must flow, and so act on them just as the water in a canal does on the gates of a lock, which it can never shut so long as they lie flat against the banks, but shuts immediately if they are pushed out from the banks. Just in the middle of the unattached portion of the margin of each valve, there is a little projecting fibrous particle, which has been considered to be useful in effecting the same object, for, as it will touch the wall of the artery first when the valve opens back, it is evident that it will keep the rest of the valve out a little from the artery, and so always leave a passage behind it for the blood. These three little particles also, one on each valve, have been considered to be of use in another way when the valves are shut; namely, by filling up the very center of the opening, which might otherwise not be completely closed, although the margins elsewhere overlap a good deal.

As the blood comes back from the lungs after being oxygenated, it is poured by four veins into the left auricle of the heart, which is the third chamber; and this, just like the right auricle, pumps it into the left ventricle through an opening a little smaller than that on the right side of the heart, and guarded similarly by a valve having only two leaves or flaps, instead of three, but provided with the same arrangement of cords and muscles, only that here there is no safety-valve arrangement as on the right side—since, in the first place, the left ventricle may always, and can always, empty itself of the blood as fast as it is filled with it, for it drives the blood through the body, the structure of whose capillaries is much stronger than in the capillaries of the lungs, and consequently in no danger of giving way; and, secondly, if there were a safety-valve action, it would only overload the lungs, for there are no valves in the pulmonary veins to prevent it going back, as there in other veins, and thus the very mischief would be produced, to

avoid which the safety-valve arrangement is provided on the right side of the heart.

The left ventricle, or fourth chamber of the heart, is the strongest of all, since it has to drive the blood through the whole body, and it also drives a small quantity through the muscular substance of the heart itself. The great artery through which it sends the blood is called the aorta; it afterward gives off branches, which again ramify until the subdivisions become innumerable, and supply all parts of the body. Its opening is closed by three semi-lunar valves, precisely similar to those closing the opening into the pulmonary artery; and as both these large arteries proceed upward from the heart, the force of gravity aids the blood in shutting the valves. Sometimes, however, any of these valves may become diseased, and not act perfectly, and then death is sure to ensue shortly, and may be very sudden. We remember having a patient under our care, who suffered much, and died suddenly thus; and we found, afterward, that every one of the three valves which guarded the aortic opening had a large hole through the middle of it.

The muscular fibers, of which the substance of the heart is composed, and by the contractions of which its force is exerted, are very much interlaced, but the greater number of them are inserted, by both ends, into strong rings, of fibrous and cartilaginous structure, which constitute the margins of the openings from the auricles to the ventricles, and also from the ventricles to the two great arteries. The fibers which pass round the cavity of an auricle, and so form its body, are inserted by both ends into the cartilaginous ring which is between this auricle and its corresponding ventricle, and those which similarly form the corresponding ventricle are inserted into the same ring, just as in a balloon the cords which surround the balloon and those which come from the ear are inserted into one and the same ring placed between the two. Some of the fibers of the ventricles are also inserted into the rings at the openings into the two great arteries, so are the arteries themselves, as well as all the valves above mentioned. In some of the larger animals, as the ox and the elephant, there is even bony structure connected with some of these rings.

There are other muscular fibers which are circular, their ends being, if we may so speak, inserted into themselves, like the horizontal cords on a balloon; but to enter further on the arrangement of these fibers would be too technical for our present article.

Now, it is evident that, owing to all the motion involved in these contractions and dilatations of the heart—motion to such an extent as even to make its pulsations visible externally between the ribs—there would be a great amount of wear and tear, and friction against other organs and so impediment to the heart's motion itself, and injury to it and other organs, if there were not some contrivance to obviate this result. Accordingly we have the heart completely inclosed within a beautiful bag, inside which it can work freely, without any inconvenience or danger to itself or the neighboring organs. The structure of this bag, or closed sack, is admirably adapted for allowing freedom of motion. It consists of two membranes, which adhere closely to each other for a great part of their extent. The outer membrane is the strongest, and is continuous every where all round the heart, except where it is pierced by the lower great vein from the body; it forms a kind of sheath for all the other large vessels, till at a short distance from the heart, it becomes lost on their coats. The inner membrane is very smooth and glistening, and after lining the greater part of the outer one, it leaves it near the great vessels, and attaches itself to the coats of these, and accompanies them for about two inches till they enter the heart, when it attaches itself closely to the outside of that organ, being firmly adherent to it in every part, and completely continuous with itself; so that between the part which lines the outside of the heart and the part which lines the inside of the outer membrane, there is an empty cavity completely closed in, in which the heart moves about; and, to facilitate its movements still more, a small amount of oily fluid is secreted in the interior of this cavity by the shining walls of the inner, or serous, membrane. The arrangement of these membranes, which form what is called the pericardium, is a little difficult to explain without an illustration, and we well remember what difficulty we ourselves at first had in understanding it; but we may illustrate it by comparing the heart

to a hand, with a glove fitting very closely, or rather adhering to it, thrust inside another glove fitting very loosely, the wrists of the two gloves being then sown together, so as to form between the two a closed sack for the hand to move about in; and if we could then imagine a third glove made to adhere closely over the greater part of the second, but leaving it at the wrist, and, a little higher up, by some strange process losing itself by uniting with the skin of the arm, which in this case would represent the great vessels, the analogy would be complete.

There is yet another thin and smooth membrane which lines the inside of all the cavities of the heart; it is called the endocardium, and is continuous with itself and with the membrane lining the inside of the great vessels which enter the heart; and it is of this membrane, doubled on itself at the rings of fibrous and cartilaginous structure, and there inclosing some fibrous structure, that all the valves above alluded to are composed.

Strange to say, a wound of the muscular structure of the heart is not necessarily fatal, even though it enter the cavities, provided the valves and vessels are uninjured; the contraction of the muscular fibers is in so many different planes, that it may even close the wound and prevent bleeding. Thus there is an instance well known amongst members of the medical profession in which a soldier was shot through the heart, who still recovered, and lived for six years, and after his death the heart was opened, and the bullet found in it, in the right ventricle, lying against the thin muscular wall between the two ventricles. Nothing but the result of the *post-mortem* examination could have made such a case credible.

The development of the heart from its very earliest stage is interesting and remarkable. In tracing the early development of the higher animals, we find successive stages of progress, each stage corresponding almost exactly with the permanent or perfect state of a class of animals below that in question.

The heart, for instance, of all vertebrate animals is at first very like the circulatory organ, for a heart we can scarcely call it, which is found in the perfect state of some of the lower invertebrata. It then attains the state of perfection in which it is found in fish, going no farther in that particular class; but in Batrachians, after

passing through the first two stages, development is not arrested as in fish, but goes on to a higher state of perfection. In reptiles, the first three stages being passed through, advance is still made; while in the heart of birds and mammalia, including man himself, the highest state of perfection is at last reached only by passing through the others.

Accordingly, the earliest form in which the heart presents itself is a solid compact mass of embryonic cells, not differing in themselves from the cells of which other organs of the body are constituted, since the cell is the primordial form in which essentially vitality resides, and of which all organized bodies are entirely composed. At first there is no cavity in this heart, but shortly afterward the cells in the center seem to exert repulsive force on each other and become separated, thus forming a cavity which, however, is still closed; a liquid next appears in the cavity, in which the central cells may be observed floating; but even before this, or before even the formation of a cavity, pulsation is observed to take place among the cells. To what such pulsation is owing is beyond our present, or perhaps our possible knowledge; the cells are similar to those in other parts of the body, and yet from their very earliest laying down in this position, and mutual relation, the function begins which the organ is to discharge during the whole period of existence. These pulsations are at first very slow—about fifteen to eighteen a minute, and they simply propel the contents of the cavity to and fro. So far, then, the heart is analogous to the first shadowing forth of a circulatory system which we see in the lowest of the animal sub-kingdoms, the Protozoa, in whose transparent, gelatinous, celluliform bodies one or more clear pulsating spaces are observed in the interior of the cells, and which appear in some degree to effect a circulation in the soft substance of the body.

The fluid within the cavity soon afterward assumes the characters of blood, having been at first a homogeneous fluid, like the circulating fluid in the class of insects. About the same time the cavity opens, forming communications with the great vessels in contact with it which have been developing themselves *pari passu*, and subsequently the cells of which the walls of the heart are composed, are transformed into fibrous and muscular tis-

sues, and into epithelium, which is a name applied to the cells which constitute lining membrane, whether externally as the skin, or internally, as the mucous membrane.

About the same time the heart, which was a straight cavity hitherto, becomes curved like a horse-shoe, and shortly afterward divides into three cavities, which contract in succession; one of these is an auricle, another is a ventricle, and the third is a large bulb, which receives the blood as it leaves the heart. The heart has thus assumed the condition in which it exists permanently in fish, namely, a two-chambered cavity; for the bulb must be regarded as a vessel, and indeed soon splits up into a number of arches, which remain permanent in fish, and carry the blood first to the branchiæ or gills, and afterward round the body; but in higher animals these arches become closed after a time, with the exception of three, one of which remains persistent, and forms the arch of the aorta; a second is the vessel which we mentioned above as connecting the right ventricle with the arch of the aorta before birth, and becoming closed in one part soon after birth; and the third is a similar vessel on the right side, which, however, becomes closed before birth. The part of the second one which remains open, gives off the artery to the lungs, which, of course, remains persistent; and some parts of the other closed arches still remain open, and become the arteries for the head and arms.

Next in order, in the development of the heart itself, comes the separation of the auricle into two chambers, thus giving us the heart of the Batrachians and lower reptiles, (an opening however, still remaining until birth, as is mentioned above;) and then a division is formed in the ventricle also, which is completed before birth, and is found in the crocodiles, birds, and mammalia, including man himself. The bulb mentioned above becomes swallowed up in the ventricles, and the partition, after separating the ventricle into two, goes on, and separates the base of the bulb into two, thus separating the roots of the pulmonary artery and aorta.

We have thus given a brief outline of the structure, functions, and development of the heart, that beautiful machine by which circulation is kept up and nutriment supplied to all parts of the body. Who can witness such contrivance, such



resource and ingenuity, without feeling himself compelled to acknowledge the existence of an Almighty and benevolent Designer? If it be true that "the undevout astronomer is mad," much more, we think, is the undevout anatomist, and they most unjustly libel the science, who say that the study of it has a tendency to foster atheistic sentiments.

We have seen this machine, the heart, at rest, as it is presented to the view of the anatomist, both at various stages of its development, and in its perfect state. It is possible even to witness it in motion discharging its functions, as it is presented to the view of the physiologist, yet even then we should have seen but the commencement of the wonders that exist there; for what those mysterious forces are which first develop its structure, and subsequently retain it in action, endowing it with that exquisite irritability or sensitiveness by which it becomes, on the ap-

plication of suitable stimuli, a working, nay, a living and self-repairing machine, or what even is the essential force in those stimuli—these are things which neither the knife of the anatomist, the microscope, nor chemical analysis, nor any other reagent at our disposal can reveal.

Indeed, it is probable that they are beyond the scope of our present faculties to comprehend, yet they also are the works of the Creator, and, doubtless, intended to display his power and skill to intelligent beings; so that from our very ignorance and incapability for such knowledge here we are led to hope for a higher state of being, where, with more perfect faculties, we may be permitted to satisfy the longings of the mind for a knowledge of the hidden laws of the Creator, and so of the Creator himself, and to explore all those mysteries of nature which here are among the things unknown.

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From the London Review.

## HISTORY OF THE MARTYRS IN PALESTINE.\*

DR. CURETON has long distinguished himself as the discoverer, editor, and translator of various important remains of the Syriac literature of the early Christian centuries. The romantic story of the Nitrian mss. of the British Museum, which are at once his workshop and harvest-field, is familiar to every one; and though the learned alone can appreciate the erudition, the critical judgment, and the marvelous industry and patience, which mark his labors, he can not fail to win, what he well deserves, the gratitude of all who prize the past for the light which it sheds upon the dark ways of the present, and who feel it to be good to turn over the family chronicles of the universal Church. Viewed under this

last aspect, Dr. Cureton's latest production above named has a value and interest no way inferior to that of any of its predecessors. Readers of Eusebius are aware, that in the eighth book of the *Ecclesiastical History*, there is a passage, in which the scholar-bishop promises an account, in a separate form, of the martyrs whose sufferings had come under his own observation or immediate knowledge. At the same time, most of the Greek mss. of the *History* itself are known to contain a brief narrative, which answers to this description, but which has no fixed place in the work, being found now in this position, now in another, though commonly at the end of the eighth book, where it appears in Heinichen's and other printed editions. It could scarcely be doubted that this was substantially the monograph of which Eusebius speaks; yet no Greek copy of it is known to ex-

\**History of the Martyrs in Palestine.* By Eusebius, Bishop of Caesarea, discovered in a very ancient Syriac Manuscript. Edited, etc., by WILLIAM CURETON, D.D. London. Williams and Norgate. 1861.

ist apart from the larger *History*; and various considerations led to a general belief among the commentators, that the piece in question was an abridgment, made by the author's own hand, of a more complete and detailed account, which had perished. A discovery of Dr. Cureton's puts a new face on the matter. In that "wonderful volume" of the Nitrian Syriac MSS., whose biography Dr. Cureton has written in the preface to his *Festal Letters to Athanasius*, he found, among other treasures, a work "On the Martyrs of Palestine, by Eusebius of Cæsarea," transcribed, like the rest of the volume, at the early date of A.D. 411, within about seventy years, that is to say, of Eusebius's death. Examination soon showed that this was not a mere translation of the paragraph in the *Ecclesiastical History*, but a distinct and fuller tractate on the same subject; and all subsequent scrutiny and criticism have verified the conclusion to which Dr. Cureton was very early led respecting it, namely, that this Syriac text must be considered to be a near reproduction of that larger Greek martyrology, which Eusebius is supposed to have afterward condensed and shaped to the purposes of his more general *History*. What the precise historical relations may be, which connect the longer and shorter narratives both with one another and the *History*, it is hard to say. It is not improbable, that Eusebius, having promised the Book of the Palestinian martyrs in the first edition of his greater work, found time to write it very shortly after that edition was published, and that in the later recensions of the *Ecclesiastical History*, he introduced that modification of his treatise, which is found in the Greek copies. It may be properly called a modification; for though there are details and descriptions in the larger treatise, which are wanting in the smaller, and which we are glad to recover from the wreck of the ages, the two are one in their leading features, and there is often an all but absolute verbal correspondence between them running through sentences and paragraphs together.

Whether in the more curtailed or extended form, the narrative itself does infinite credit to the heart of Eusebius; and despite its tautology and its other artistic defects, it is worth all the fine writing in Christendom as a simple and

touching memorial of the piety, patience, and faith of the days of old. An age like our own—one not distinguished by a fanatical love of the stake—will be quick at finding weak points in the conduct of the holy men and women, whose sufferings are here recorded. And we do not pretend to say that there are no such points. Let it be enough, however, to hint at their existence. To linger on them for a moment, side by side with the amazing spectacle of courage, fidelity, zeal and love for Christ, which these ancient saints exhibited, would make a noble nature quail with scorn of itself. If any one wishes to escape awhile from the tedious presence of factitious graces and spiritual sauntering, he can not do better than ask Eusebius to tell him the pathetic story of the life and martyr-death of Epiphanius, the Lycian, or to describe the good confession which his beloved Pamphilus's noble disciple Porphyrius witnessed, or to recite to him, as long as his hearer can bear to listen, what Theodosia of Tyre passed through, or that tried saint "of the land of Gaza," or Valentina of Cæsarea, her companion in the fire, or the poor girl from Baishan, whose pitiful case he describes near the end of his piece. Verily Christianity was something fifteen centuries ago, whatever it is now.

Dr. Cureton has executed his task of editor with the accuracy, precision, and completeness which characterize all his publications. The compliment which he pays his French fellow-laborer for the scholarly exactness of his Syriac texts belongs in full measure to himself. An explanatory and critical preface of some ten or eleven pages forms the first part of the contents of the thin but comely octavo, in which the results of his recent Eusebian studies present themselves. This is followed by an English translation of the Syriac, which merits commendation not only for its faithfulness to the original, but also for the happy manner in which it preserves the middle-line between a slavish adherence to the Semitic idiom on the one hand, and an unwarrantable disregard of its just claims on the other. To this second section of the book—the most interesting of all for the general reader—succeeds a number of well-written notes, very much on the plan adopted by our author in his *Syriac Gospels*. Finally, we have more than fifty pages in

which the Syriac text spreads its forms of beauty and grace before the eye. We should like to hear some philological Ruskin talk about the Estrangelo character, as it appears in Dr. Cureton's volume. We are greatly mistaken, if he would not find witcheries akin to those of cloudland and woodland in this fair creation of "art

and man's device." We do not know how many more literary discoveries Dr. Cureton intends to make, or how many more good books he thinks of writing. If his future fortunes and achievements at all equal his past ones — may he live forever!

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From the National Review.

## MUSIC AND THE LYRIC DRAMA.\*

CROMWELL, notwithstanding his natural fondness for music, was obliged to submit to the prejudices of the Puritans, and allow the ecclesiastical chanting and anthems to be supplanted by the psalms of the Presbyterians. It is amusing though to see that he took especial care to have the organ which was expelled from Magdalen College, Oxford, brought to Hampton Court for his own private enjoyment. But Cromwell had encouraged operas as a popular entertainment, by his permission given to Sir William Davenant to open a theater for the purpose at the upper end of Aldersgate street, in a large room at the back of Rutland House. Here, in 1659, the first of English operas was performed, with Henry Cook, Mrs. Coleman, (wife of Dr. Charles Coleman, composer of the instrumental music,) Peter Rymon, Matthew Lock, (so well known for his music to *Macbeth*, composed in 1674,) who wrote the music for the fourth act, Henry Lawes, who wrote that of the first and fifth, Henry Purcell, the father of the great Purcell, who was born some three years after, and others. The opera was called "*The Siege of Rhodes*," made a representation by the art of perspective in scenes, and the story sung in recitative music." The orchestra in this primitive opera consisted of six performers, and the chief instrument was the harpsichord. Purcell, who claims for England an honorable place in the annals

of lyric art, was thus brought up in the then best school; he had heard all that Cambert could do in his *Ariadne*, and knew the music of Grabu, another Frenchman, who accompanied Cambert to the English court, and was taken up by Dryden to write music to his political opera *Albion and Albinus*, performed in 1685. But there was at Oxford a little knot of musical spirits, meeting at the house of Will Ellis, organist of St. John's, in 1656, as Anthony à Wood tells us, and occasionally at the "Salutation Taverne," where "Peter Pitt, Will Bull, Kerr Digby, and others of Allsoules, as also Ant. W., did give a very handsome entertainment" to Davis Mell, the first violinist in London and clockmaker, being in Oxon, whom "the company did look on to have a prodigious hand on the violin." At these meetings quartets and sonatas in some form were played, possibly from the works of Bassani of Bologna, the master of Corelli. It is evident that, though the fashion of the music was French, the inclination of the English taste was toward the Italian. Milton had spoken of the Italian music; Pepys says in his *Diary* that Sir Tom Killigrew had been eight or ten times to Rome "to hear good musique, so much he loves it." Pepys seems to have perceived the best character of the music in the recitative, though Baptista Draghi was an eminent composer; and Pepys confesses himself "mightily pleased with the musique." But the opera

\* Concluded from page 224, vol. IV.

never came out. Another Italian contributed much to the preference for Italian music in the latter part of the reign of Charles II. This was Nicola Matteis, mentioned in the *ms. Memoirs of Music*, by the Hon. Roger North, brother of the Lord Keeper. He was a sort of Paganini of his day; for he was a wonderful violinist, and no man could play his music but himself, it was so difficult. Mr. North's description of his style shows that good playing was then appreciated: "His manner of bowing, his shakes, divisions, and, indeed, his whole style of performance, was surprising, and every stroke of his bow was a mouthful. All he played was his own composition, which manifested him to be a very exquisite harmonist, and of a boundless fancy and invention." We have dwelt thus upon the sources of Italian influence to show that Purcell, who followed after this time, had abundant means of becoming acquainted with it. He expressly says himself "that he has faithfully endeavored a *just* imitation of the most far-famed Italian masters, principally to bring the seriousness and gravity of that kind of music into vogue and reputation among our countrymen, whose humor 'tis time now should begin to loathe the levity and balladry of our neighbors." Owing his ignorance of the meaning of the language, he thinks he is not mistaken in the power of Italian notes, or the elegance of their compositions.

This could scarcely have been said better, and it shows us the secret of his own excellence in his sensitiveness to the beauty of the Italian style, then chiefly superior in the grace and apt modulation of the sounds in the words and the sentiment. Purcell is known to have studied constantly the music of Bassani, of Carissimi, Stradella, and perhaps Lulli. Had not Purcell died an early death, at thirty-seven, he would have done more for English opera than has been achieved as yet; he would have swept away all spoken dialogue, and made his operas complete with recitative. As it was, the art relapsed into a pitiable condition, not likely to be relieved by Dryden's inspirations, and certainly not favored by the banter afterward bestowed upon the opera by Steele and Addison in the *Spectator*. It was an age of display and sham, with a feeling of inflated classicality in all the arts; and in opera especially the theme was always

a classical one—the Horatii and Curiatii, Hydaspes, Arsinoe, Pyrrhus, and Demetrius, Camilla, and such like. There was the same preposterous taste for sham lions and satyrs that belonged to the rude period in Italy, and every kind of absurd "properties." Addison makes immense fun of the lion in *Hydaspes* that Signor Nicolini had to kill; and who, though only a candle-snuffer in the noble disguise, became dangerous by repeated public defeat, and at last offered to wrestle Nicolini for any thing he pleased out of his skin. Operas at this time, 1705, were sung partly in English and partly in Italian, the two rival singers, Margaritha l'Epine and Katherine Tofts, being the stars at Drury Lane in *Arsinoe*, an opera by Clayton. *Rosamond*, the libretto of which Addison wrote for Clayton's music, was a failure, and is thought to have made him so sarcastic against the opera as an entertainment. But Addison, like St. Evremond, who pronounced the opera "une sottise magnifique, mais toujours sottise," was evidently at heart a lover of the lyric art; although it was not to be wondered at that he found it impossible to overlook the absurd incongruities which then surrounded the opera. When Handel came over in 1710, and brought out his *Rinaldo*, he made very small impression upon the *Tattler* and *Spectator*. The sparrows and chaffinches flying and chirruping about the stage was too good a subject for the critics to miss; but still the opera was a success, to the annoyance of Clayton and his literary patron Steele. Anastasia Robinson, as prima donna, seems to have had much to do with the success of Handel's operas, and still more after she became connected with the Earl of Peterborough, whom she eventually married. It was quite the thing then to fall in love with the contraltos; Lavinia Fenton, who was equally the rage as Polly Peachum, became Duchess of Bolton; and Miss Campion had, before that time, been implored to become Duchess of Devonshire. In fact, the opera was then more like the *salons* of Paris, as a center of intrigue and opposite factions, than a place where people went to enjoy music, as they do now. Handel's success, if so it could be called, in the Haymarket, immediately created another opera-house, in Lincoln's-Inn Fields, under Porpora, pupil of Scarlatti, and pet of his "Nobilita Britannica." But



the contest only ended in the failure of both, certainly without any great advance to the art, either as regards new works or improvement in the public taste. Every one of Handel's thirty-five operas is long ago buried in the museums; now and then a song is heard, such as his "Cangio l'aspetto," from the *Admetus*, and "Lascio ch' io pianga," from *Rinaldo*. But, as operas, his works are unknown; and so of Porpora and the two Buononcinis. His operas literally emptied the house, and he used to scatter orders in the highways and byways. Two professors once asked him for orders for the *Messiah*, to whom the maestro broke out with: "Oh! your sarvent, mein herrn! You are tamnable dainty! you vood not go to *Teodora*—ther ewas room enough to dance there when dat was perform." Handel's genius lay in oratorio; he wanted the delicacy of sentiment requisite for opera, and found in that kind of grand vocal symphony of his chorus the massive and imposing effects that possessed his thoughts, for he had no romance whatever about him. Something is perhaps to be laid to the charge of the social condition of his day, so false and hollow in every respect, and little calculated to inspire a warmer or truer feeling in the breast of an artist. It was even worse in Paris, where the gorgeous follies of the Grand Monarque made music the slave of the ballet, and prolonged a period of hideous licentiousness throughout the reign of Louis Quinze, without a sign of improvement till the time of Gluck and Piccini, (1774.) In Germany, at Dresden, at Hamburgh, and Vienna, opera was much in the same condition as in London. There were able singers, such as Faustina, Cuzzoni, Cafarelli, and Farinelli, but the opera was overburdened with scenery and spectacle. Porpora, the young Neapolitan, had brought out his first opera, *Ariana e Teseo*, at Vienna, in 1717, and his success is said to have been splendid; but yet he came to London, as we have seen, to fail, even with Farinelli. Haydn, his pupil, and Sebastian Bach, were then becoming celebrated as composers; but they did nothing for lyrical music, so that here again the art rests till Gluck aroused it. Italy, however, was still the attraction for all the artists. Handel, with the first fruits of his youthful operas, went to Florence, Venice, Rome, and Naples, composing operas at each place,

all of which were well received; Gluck and Haydn derived their style also from the Italians; and Mozart, too, though less influenced by them, for he was one of the few gifted with the true creative faculty of the art. This period in Italy has been called the Augustan age of Italian music; it was characterized by a general aim at refinement of melody; at first rather too much overlaid with the ecclesiastical style of the old musicians, but afterward, in the hands of Clari, Durante, Marcello, Leo, Vinci and Pergolesi—a perfect constellation of musicians—ornament was so profusely bestowed, that even the style of the church became like that of the theater. Still, however, we find but little evidence of the genuine dramatic feeling in the duets, trios, and cantatas which are known by these writers; even Marcello, though he could write a famous essay upon the *Teatro alla Moda*, did not produce any thing better. It is clear, from the allusions of this clever satire, that the manager's effects were the first consideration; the assassinations, poisonings, earthquakes, specters, and incantations, were to be rigorously respected by both poet and musician, whatever liberties might be taken with the music by the singers. That the Italian audiences nevertheless were the best judges of good music may be concluded from their reception of Jomelli's operas, when he came back from Vienna infected with the science—the "*musica dei matematici*"—of the German school. His *Demofonte* did not take, and his *Ifigenia* was an utter failure. His friend Metastasio saw that his music was too operose, and begged him to follow his natural style. "It is true," he says, "you can not help sometimes expressing the passions in the way that your happy temperament suggests, but as you are obliged, in order to support your learned iden, too frequently to interrupt the voice, the impressions already made on the mind of the hearer are effaced"—a criticism which applies very justly to the German style to this day. Dr. Burney says he once asked a Neapolitan how he liked *Demofonte*; and he replied with vehemence: "E scelerata, signore!" The term is amusing, and exactly expressive of the Italian feeling for ease and graceful indolence; every thing complicated is Gothic, pedantic, and *scelerata*. The instinct may be a depressing one to commercial progress, but it certainly seems to involve

some secrets in the taste for art which even now are scarcely comprehended by other people. Very few composers possess the gift of touching the heart, and yet concealing the wand of their art; Rossini is the best example of the union of the florid style with the most expressive and delightfully sensuous music; Mozart, even more sensitive, draws his subject with a simpler line, and in less glittering color. The principle of *ease* in lyric art corresponds to that of repose in plastic and pictorial art; it seems to be indispensable to the enjoyment, as if the mind demanded a moment to itself to dwell upon the full sense of beauty. Something of the same kind is felt in the pleasure of a *refrain*, or in the repetition of the same form in architecture. But this is an element which is opposite to the fiery dramatic feeling which has been increasing upon the lyric stage from the time when Gluck and Piccini began to unite music to the poems of Metastasio, Goldoni, and Marmontel. If we watch the progress of the lyric drama, it is to see more and more expression thrown into the voice parts in the operas of Mozart, Cimarosa, Rossini, Weber, Meyerbeer, Bellini, Donizetti, and Verdi, who has gone beyond the limits, perhaps, in yielding to the demand for dramatic expression, and lost himself a little in the enthusiasm of his own feelings. His music frequently gets an air of empty violence, producing an impression of an inferior order, and destroying the true lyric character, by making music mere declamation. This is the threatening evil of our time, which, however, is avoided by Meyerbeer in such exquisite passages of romantic sentiment as the great duet in the *Huguenots*, and is never perceptible in the grand classics of Mozart and Rossini. It is the musical grace, the rich harmonies, the refinement of style, with an infinite power of expression, according to the responsive genius of the interpreters, which renders their masterpieces so profoundly enjoyable to us at a time when the highly-colored, the rapturous, and the sensational are carrying artists of every kind to the verge of that desperate condition of the debauchee, when the thirst for fresh pleasures is increased, but the sense of enjoyment is deadened.

Returning to the period when the rivalries of Piccini and Gluck were convulsing the musical world, and, indeed, the

fashionable and political spheres, for both composers had their patrons in high places; the Dauphiness, Marie Antoinette, introduced Gluck, consequently Madame du Barry never went to the Opera, and sought out Piccini as *her* musical lion; thus the seeds of this absurd musical cabal were deeply planted before both the rivals were in the field. Christopher Gluck was an orphan of Bohemian parents; as a boy he learnt the violoncello, and being then thrown on his own resources, gained a living as a member of just such a German band as one sees wandering about in our streets. At Vienna, his talent was observed by some of the virtuosi, and he was sent to Italy to study under Martini. His first work, *Artaxerxes*, was performed at Milan, and during five years seven others were composed and played at Venice, Cremona, and Turin. He gained a name in Italy, and was persuaded to visit London; but here Handel outshone him. After a short visit to Vienna, we find him composing again in Italy, where by this time he would have heard the operas of Piccini, whose music was creating the greatest interest at Naples. Piccini was of the school of Leo and Durante; but he possessed original notions of lyrical music, and we are disposed to regard these as the foundation of some remarkable improvements which have gradually been adopted by later composers. He exploded the antiquated practice of ending a piece with a *da capo* of the first movement, and made it work up to a climax at the end, in the manner followed by Rossini and all the modern Italians of his school. His masterpiece, *La Buona Figliola*, brought out at Rome in 1760, the poem by Goldoni, excited an extravagant enthusiasm all over Italy, France, Germany, and England. In this work he invented the plan of making each act end with a climax of concerted music, in which most of the characters were concerned, and the action carried rapidly on, precisely as we have it in a more finished and imposing scale in the grand operas of Mozart and Rossini. In his scenes he contrasted an opening slow movement with a rapid and impassioned ending; so that to him we are indebted for much enlargement of the means of expression. It is much to be regretted that his operas are never heard by the side of Gluck's, although we are quite ready to admit that

the music of neither would be thoroughly enjoyed by audiences accustomed to richer and fresher sound-pictures. Some of Piccini's music we can speak of as wonderfully dramatic; the "Se il ciel mi divide," from his *Didone Abbandonata*, written for the theater of Louis XVI. at Fontainebleau, completely anticipates the dramatic fervor now so much in vogue with audiences and singers, when they happen rarely to be gifted with the charm. His genius was as fertile as Rossini's; for, like him with the *Barbiere*, Piccini composed his masterpiece, *La Buona Figliola*, and heard it completely performed, in eighteen days. He had written no less than one hundred and thirty-four operas, besides oratorios and cantatas, when he came to Paris in 1776. Had they been fewer, they might have rendered more justice to his name. As to comparing the operas of Gluck and Piccini, the advantage is completely on the side of the German; for his operas are, by some lucky influence or other, listened to by the audiences of Paris, who assume to be the virtuosi *par excellence*, while Piccini's are unknown. Yet in the light of the animosity between the partisans of the German and the Italian, with all the court except the King and Madame du Barry, with the prime favorite Sophie Arnould in the part of Ifigenia, Piccini came modestly with his *Roland*, leaving his family in tears of anxiety at the prospect of his failure; and the opera, though not well executed, was pronounced "the greatest imaginable success." Gluck was undoubtedly a reformer, and highly endowed with the dramatic expression; but he lacked the feeling for beauty which every thing Italian displays. He used to say of the Italian airs: "Yes, they are very charming, but they do not draw blood." Yet, in reading his dedication of *Alceste* to the Grand Duke of Tuscany, he descants with excellent understanding upon the lyric drama. When, however, we come to hear his music, it must be candidly owned that, like that of Piccini, it opened the way in which Mozart was really the great explorer. It is this amount of interest that has constantly caused the student in music to support the reproduction of Gluck's operas; but they have never maintained any higher place in the esteem, and can not be said to satisfy the tastes of those who, in the present day, regard the lyric art as wor-

thy of a place beside poetry, eloquence, the drama, in company with painting and sculpture, in the circle of the expressional arts. The successes accorded by the French taste of that day would not have warranted the revivals of the *Orphée*, the *Iphigenie*, and the *Alceste* of to-day, had not there been a Viardot, whose genius could throw life into the dullest music; just as we saw Nicolini enthusiastically lauded by Steele and Addison, whose taste, with all their prejudices, was true as the needle to the pole, for the grace and propriety of his action, the expression of his countenance, and the admirable enunciation of the recitative, nonsensical as it was, and poor the music. We find M. Scudo, and all the eminent critics, enthusiastic in praise of these very qualities in Madame Viardot, not enraptured with the music, although it is supposed to have furnished the entertainment of the Parisians for two whole seasons. We have had the *Iphigenia* performed as an oratorio under M. Halle, with an English poem by Mr. Chorley; and the effect was really better than in the *Orfeo*, performed with every accessory of the finest lyrie stage in Europe, and with a prima donna in the chief part who was undoubtedly a dramatic singer, if she was not an Italian vocalist. One air alone lives, and is likely to live, in the *Orfeo*, and that is the "Che faro senza Eurydice;" but its beauty is not at all associated with the dramatic element. It is equally touching as sung in a concert-room, from the simple grace of its form. The music of the Elysian fields, sung by the happy shades, is any thing but a happy strain; it is monotonous, and as to expression would serve as a chorus for many situations. So also of the finale of the second act, which is completely in the style of the church. To endeavor to glorify Gluck as the source whence Mozart gathered his beauties, amounts to no more than to point to the old stories which Shakspeare took as the ovum for his grand developments. Cim arosa was probably as much studied by Mozart and Rossini as Gluck was, and deservedly so; for in the manner which is esteemed his best there is a fund of gay humor and originality of musical idea. We refer to the *Matrimonio Segretto*, an opera that is welcome to this day, notwithstanding the fascination of the *Barbiere*. He was of the same school as Piccini, and composed the

*Matrimonio* in his thirty-eighth year. His *Orazi e Curiaci* is well known abroad, but forgotten in England.

Before Mozart's time music had gained a most important advance in Haydn's invention of the quartet, and in his improvement of the grander form of the orchestra in the symphony. The German musicians had long been taking the lead as instrumentists, and this naturally enlarged the scope of the orchestra and of music generally as an art of expression. The symphony became a grand sound-poem in the hands of Mozart, it was carried even into higher regions by Beethoven and Mendelssohn; and to it we attribute the larger style which characterizes the *Don Giovanni*, and the *Nozze di Figaro* of Mozart. A painter would say that Mozart enriched his palette with a wealth of new tints and tones, with which he swept in as with a full brush the noble forms and lustrous effects of his pictures, giving character and life to his figures, and compelling the sympathy of the spectator. Although Mozart was bred in the German school, until he composed his *Entführung aus dem Serail* or *Seraglio*, there was no real German opera at Vienna; every thing operatic was in the hands of an Italian clique, at the head of which was Salieri, who was even suspected of poisoning Mozart, such was his hatred and jealousy of the young composer, and such he knew to be the merit of his *Don Giovanni*, for he had the score placed in his hands as director of the opera when it was in preparation. Salieri contrived to have both the *Nozze* and the *Don Giovanni* so badly executed that they failed, and were completely eclipsed by the immense success of his own *Assur*. The *Nozze* was written for the Italian theater, therefore we can not be surprised at such a result; for, notwithstanding Mozart had imbibed the best style of the Italian masters by his studies in Italy, where he had in fact tried his young hand on several operas with the utmost success, Salieri and his countrymen had too good a position to yield to the claims of direct merit. Mozart, then, was driven to gather his laurels at Prague, and said waggishly that he wrote *Don Giovanni* not for Vienna, but for Prague—"for himself and a few friends." His genius at that time was, however, fully recognized by Cimarosa, when he said to an artist who flattered

him by saying his music was superior to Mozart's: "I superior to Mozart, sir! What would you say to any man who should tell you that you were superior to Raphael?" This was before Cimarosa had brought out his *Matrimonio*. Haydn again, after the failure of *Don Giovanni* at Vienna, said in a crowded room, when the connoisseurs were damning the opera with faint praise: "All I know is, that Mozart is the greatest composer of our time." It is remarkable that, on account of the Napoleon war, neither of these operas were performed out of Germany till 1811, when the *Don Giovanni* was given at Paris, but not till 1817 in London. Mozart never could have heard his master-piece as we know it; there was only one superior singer in the cast for the "Il dissoluto punito," that was Bassi, the baritone, who was the Don. It is therefore the more astonishing that he should have conceived such magnificent passages for dramatic expression as the tragic end of the father of Donna Anna, her struggle with the libertine; in the grand finale of the first act, in the statue scene, and in the awful catastrophe when the Don struggles and writhes in the grasp of the avenging Don Pedro, a ghostly statue, whose stony voice mingles with the supernatural and overwhelming sounds pouring from the orchestra. Nothing in music of this *genre* has ever been produced that will bear comparison with it, either in construction or portentous effect upon the mind. Weber's diablerie tricks of sound in the *Freischütz* are ridiculous; Meyerbeer's music in the raising of the nuns in *Roberto il Diavolo*, and Bertram's fiendish incantation song, are in fine keeping with the scene of the drama, but of far inferior mold to the *Don Giovanni* music. Then what so admirably expressive as the "La ci darem," the "Fin ch' han dal vino," the "Il mio tesoro," and so we might go on throughout the opera? Nothing can show the truth of his conception more than to see how all the great singers, and *only* the great singers, have identified themselves with the chief parts of the opera, every one of which absorbs the last touch of art that can be bestowed upon it, only to become more impressive and delightful. To name these would be to run through the list of all the singers, from Ambrogetti, Tacchinardi, Madame de Begnis,



Madame Fodor, and Ponto the first Leporello, to Tamburini, Lablache, Mario, Grisi, Persiani, and Bosio of our day. Lablache was an early Don in 1832. The *Nozze* was altogether conceived in a different vein, playful, elegant, sentimental, and beautiful throughout, both for the voices and the orchestra. The *Zauberflöte* may perhaps be considered as the next well-known opera; but neither it nor the *Idomeneo*, the *Così fan tutte*, and *Clemenza di Tito*, has ever made the impression that the *Don Giovanni* and *Nozze* have, although they have lived to be heard occasionally at the present day. Mozart himself, though averse to speaking of his works, preferred the *Idomeneo* and the *Don Giovanni*; the former, perhaps, from association with his love for Constance Weber, who was the object of his devotion when he wrote the *Idomeneo*, determined to achieve success. Mozart has often been called the Raphael of his art. The comparison is apposite enough as regards his power, his tenderness, and refinement; but his feeling for richness of harmony in the orchestra—the complete grasp of his palette—would require a dash of Tintoret or Titian. Rossini, coming after him, carried the luxury of color in music, if we may be allowed the expression, to a pitch more comparable with the bravura of Rubens. He wielded his authority over both voices and orchestra, and made them do his bidding in such marvelous work as astonished the performers themselves at their own achievements. In his earlier operas he indulged his fancy for ornament perhaps too much for such themes as the *Tancredi*; still it had always the grace inseparable from Italian art; and in most of his operas this highly ornate style was particularly appropriate, as in his oriental subjects—*Italiana in Algeri*, *Turco in Italia*, *Otello*, and *Semiramide*. In the *Barbiere*, too, the *Gazza Ladra*, and the *Cenerentola*, we could not wish one pearl removed from his delicious roudelades, not one piece of broidery from his silken web of oriental dyes in the orchestra. And yet his music can be grand, and declamatory, and imperious in *Tancredi* and *Semiramide*; pathetic and passionate in the *Otello*; sentimental in the *Gazza Ladra*; noble and dramatic in the highest degree in the *Guillaume Tell*. If the highest aim of lyric art be to give the fullest expression to the feelings, and at

the same time the utmost beauty which the senses can perceive in music, then Rossini has attained this. Notwithstanding, he has been all but pronounced a heretic for his consecutive fifths and discords of the seventh resolved upward. Let us recall, for example, the opening of the *Barbiere*, the serenade, "Piano, piano!" and the "Ecco ridenti il cielo," all so glowing with exquisite fancy, and so completely in the piquant yet listless style which leads the thoughts to Seville, and prepares for the delightful humor and *mechannerie* that are to follow in the opera. As a contrast to this, compare the song of Desdemona, "Assise al piè d'un salice," and the song of the gondolier, "Nessun maggior dolor," unequaled as expressive of the sadness of despair. What can surpass the dramatic fire of the trio in *William Tell*, or the delicious tones of love breathed out in Arsace's "D'un tenero amore," especially as we have heard these celebrated *morceaux* sung by Duprez, by Tamberlik, and by Alboni? The *Guillaume Tell* is generally considered his masterpiece. In parts it is; but for unity and perfection of design, for spontaneity and freshness, the *Barbiere* has its votaries, while many would be divided in choice as to the *Otello*. The *Guillaume Tell*, having been written for the Opéra Comique, allows us to remark of the form of lyric drama, which has since arrived at a point of undoubted excellence by the works of Herold, Auber, Meyerbeer, Halévy, Ambroise Thomas, etc., that it is rather an expansion of the vaudeville than opera strictly speaking; as recitative, one of the distinguishing elements of opera, is not employed in the drama, which is here spoken and acted. It remains to be said, however, that all the best operas of this kind have had recitatives composed for them, and have been performed on the Italian stage in London, particularly those of M. Meyerbeer, of which we shall have presently to speak.

*Fidelio*, the one opera of Beethoven—for his *Melusina* was never finished—was first heard in London in 1832. The celebrated Malibran created the part of Leonora, and it has been a favorite with several eminent singers—Cinti Damoureaux, Schröder Devrient, Mdlle. Cruvelli, and Mdlle. Cziffag, the last singer of the part. The music is extremely noble throughout, and touched with the

earnestness of the master, but as a whole it is not equal to the great model of the lyric style; yet there are passages truly sublime, as the chorus of prisoners in praise of light and liberty, and the hymn of deliverance sung by Florestan. The overtures—for he composed no less than three, as if unable to please himself—are counted amongst the very highest works of their class; indeed, the greatest thinker in music, perhaps the greatest poet of the art, was not so sensitive of the charm in the human voice, most likely on account of his deafness, and for this reason expressed himself more in the orchestra.

A delightful lull came over the Italian opera world when the "Swan of Pesaro" ceased to sing; Donizetti and Bellini then cultivated a softer sentiment with resources in their art by no means poor, but of a prettier and feebler mold. Both composers have had the immense advantage of writing in a specially vocal epoch, when there was a rare conjunction of the stars in Pasta, Sontag, Malibran, Rubini, Tamburini, Lablache, Persiani, Grisi, Mario, Ronconi. Thus they wrote naturally for the voice, and owed much to the art of the eminent virtuosi we have just named. Take away these great singers, and the *L'Elisir d'Amore*, the *Lucrezia*, the *Norma*, the *Sonnambula*, the *Lucia*, the *Puritani*, the *Favorita*, fall into the inferior rank of music. On the other hand, there are evidences of a deep dramatic feeling for expression here and there in these works; as, for example, in the last scene of *Norma*, and the celebrated "poisoning trio" in *Lucrezia*, which Rossini himself might have written. But, agreeable to the ear and inoffensive to the taste as all these operas are, and long will be, it can not be said that they have done much for lyric expression. They do not feed the appetite for witnessing and partaking human emotion, though they may have contributed to keep alive the taste for this form of the drama. It is in Meyerbeer, dealing with such a libretto as M. Scribe's *Huguenots*, that we find music essaying a part in the emotions never attempted before. In the whole round of music there is nothing exactly comparable with the duet in the scene between Raoul and Valentina, when at the extreme moment of peril she utters the confession "Io t'amo," followed by that rapturous burst from Raoul: "Tu

m'ami! tu m'ami—o qual brillar!" and sustained by the exquisite touch given to the words, "dite ancor." The situation is one of the most exciting ever given to music to portray; and it may fairly be acknowledged that in this and the chorus—"La Bénédiction des poignards"—we have reached the perfection of that union of the two beauties, music and drama, which composes the lyric art. After this the music of Verdi appears rather as an indication of the tendency of the lyric music of the day than as a realization of any great conception of the musical drama. Verdi sings the music of an oppressed and revolutionary epoch as a patriot would. His cry is always piercing, forcible, and stirring, as in the wild choruses of the *Trovatore*; but when he attempts the pathetic, as in the *Miserere* scene of that opera, or the great situation in the *Rigoletto*, he can not get on without a certain ghastly and fantastic kind of treatment, which shows the musician at fault with his art. Still Verdi's music is most interesting for its *verve*, and the immense vigor with which he represents a certain class of the more mobile and violent emotions.

Music, then, although so far behind the sister arts in its development, so late in blooming, has been ripening in its life of the last thirty years. Having, like art in sculpture and painting, passed through its initiative, its constructive, and its ideal periods, it is now showing the energy of an emotional and expressive virus, caught, perhaps, from the tone of the social organism. By cultivation we have become more sensitive to the power of music, when united with words and action, to express the emotions, while the intellectual enjoyment has been brought to a higher level by the general culture which prompts us to recognize beauty in all works of art. Native melodies, however old and archaic, will always find a responsive throb, because they are thoughts in music, and they charm the ear; but the fugues and constructive conceits of the pre-Mozartian musicians are becoming more and more neglected for the delightful fancies, the breadth, the variety of coloring, and the grand phrasing of Mozart, Beethoven, and Rossini. After these classics, the idylls of Bellini, and the picturesque music of Donizetti, are acceptable as the conversation of a fine musical voice, saying nothing particularly

striking and thoughtful. But in lyrical music Meyerbeer seems to have struck a chord more in tune with the inclinations of the age, though whether more correct in taste than the lyric works of Mozart and Rossini, in which the drama is sustained by the music and not the music by the drama, we leave it to others to decide.

From the British Quarterly.

## LIVES OF THE ENGINEERS.\*

"MAN," says Lord Bacon, "is the interpreter and minister of nature." He is that, and more. Familiarity may have robbed the thought of its freshness, but it is a thought of deep truth, that the Deity should have permitted man—so feeble at his birth, and so frail in his constitution—to adjust and control the masses and forces of the material creation, so that they shall subdue one another to his service, and enable him to assert in his history so largely the sublime dominion of mind over matter.

As an historian of events bearing on this fact, Mr. Smiles appears before us. He sketches the lives of those who have won their bloodless victories—not over their fellow-men, but for them—over wood and iron, swamp and river, air and ocean, space and time; and he recounts the means by which this has been accomplished. Some doubts, it appears, were entertained, whether such a theme could be made generally interesting. These misgivings were expressed by Mr. Robert Stephenson, when Mr. Smiles mentioned that he intended to write the life of the late George Stephenson. "The building of bridges," was the reply, "the excavation of tunnels, the making of roads and railways, are mere mechanical matters, possessing no literary interest;" and, doubtless, if the biographer had simply filled his pages with engineers' reports, his volume would have been as dreary as a certain *Life of Telford*. But we think

that Mr. Robert Stephenson did not show his usual discrimination when he implied that this was the only way in which the subject could be treated. A writer of any popular ability, who had to deal with the private and professional careers of our great engineers, who wished to tell the history of their sometimes romantic and even heroic struggles with difficulties; who would narrate how they have nearly all sprung from the peasant's cottage, the herdsman's shieling, and the farm-house; who would fire the ambition of our youth, by showing that the aristocracy of mind is not hereditary, but that mother wit and genius are bestowed by God without respect of persons; who would recount the story of how a London goldsmith like Middleton, a retired sea-captain like Perry, the son of a small farmer like Edwards, a wheelwright like Brindley, an attorney's clerk like Smeaton, a millwright like Rennie, a working mason like Telford, or an engine-brakeman like Stephenson, rose to eminence, and became the benefactors of their race, would assuredly confess that it is not the fault of the theme if its recital be uninteresting. No wonder that the well-deserved success of Mr. Smiles's *Life of George Stephenson* reversed the opinion of Mr. Robert, and that he then urged Mr. Smiles even to extend the sphere he had assigned himself in his contemplated history of engineering, to trace the subject to its source, and to include the labors of Vermuyden, and especially of Sir Hugh Middleton, who may be regarded as the first great engineer this country produced. To this task Mr. Smiles addressed himself, and the result appears in

\* *Lives of the Engineers, with an Account of their principal Works; comprising also a History of Inland Communication in Britain.* By SAMUEL SMILES. With Portrait and numerous Illustrations. Two Vols. London: John Murray. 1861.

the two beautiful illustrated volumes before us, in which the biographical, historical, and mechanical materials are graphically adjusted, and in which we have presented to us a comprehensive and minute record of English engineers and engineering.

The earliest traces of engineering in this country are both remote and remarkable. When the ancient Britons were living in huts covered over with branches and sods, when tillage was unknown, when the people subsisted by hunting and pasturage, even then there were some minds that could plan, and some hands that could pile rude fortifications of earth, could transport to Stonehenge, and fit one into another massive blocks of stone, and could erect the Cyclopean bridges over the Teign and Dart, which still remain among us. But it was the early settlers on our south-eastern coasts, from Belgium and Friesland, who first instructed us in the arts of embanking, draining, and agriculture. Romney Marsh was thus early reclaimed. It extends from Hythe in Kent to Winchelsea in Sussex, and is so isolated, that the marshmen are accustomed to say that the world is divided into Europe, Asia, Africa, America, and Romney Marsh! But though its surface is below the level of the highest tides, it is preserved from the sea by a continuous bank, and affords pasturage in genial years to more than five hundred thousand sheep, besides cattle. The erection of this embankment, and the deposit of shingle by the ocean, have so changed the character of the coast, that the Roman town of Lympne is now three miles from the sea; West-Hythe is silted up, and used by the military school of musketry as a practicing ground; Old Romney, and Romney, two ancient ports, are two miles inland, and sheep graze where Roman galleys sailed.

When this embankment had been erected, regulations were passed for its preservation, and the "law and custom of Romney Marsh," afterward embodied in written law, and confirmed by successive monarch, lies at the basis of all English legislation on this subject. Twenty-four elders, or "jurats," were chosen by the inhabitants to see to the maintenance of the sea-banks, and to levy the necessary rates upon the occupiers of the reclaimed marshes. On one occasion, in the reign of Ed-

ward II., the sea broke in and inflicted great injury; on inquiry, it was found that the banks had been imperfectly repaired by those who had charge of them, "through," as Dugdale says, "the pravity of ill-disposed men, who chiefly mind their particular gain, though it be by cheating the public; that were it not for a strict watch over them, all good order would be subverted, and little else but cosenage, if not rapine, would be practiced." There is a tradition that a similar perversion of funds led to a disastrous result on the east coast; that the Goodwin Sands were once dry land projected by embankments, but that a rate intended to be spent in their repair was misappropriated for the building of Tenterden steeple, and that, in consequence, the sea burst in and overwhelmed them. Hence the proverb about Tenterden steeple being the cause of the Goodwin Sands.

The most important reclamation of land early attempted, was by the embarkment of the Thames. Previously, it was a broad estuary, often spreading its waters for miles over the lowlands, and forming devious channels at low water through which the ebbing tide slowly found its way to the ocean among vast reed beds and expanses of mud and ooze. Opposite the city of London the tides washed over the lands where Southwark and Lambeth, and what is still known as the Marsh and Bankside, are now situated. On the north side, a British settlement is believed to have once occupied the site of St. Paul's, bounded on the west by the Fleet, on the north and east by morasses, Moorfields Marsh having been comparatively recently reclaimed. The labors of successive generations were necessary to roll back the waste of waters. The higher tides long resisted the attempts made to control their course; scarcely a season passed without the inundation of the reclaimed lands, and the most energetic powers had to be given for impressing laborers and distraining for rates. This was especially needful on the north side, where breaches occurred at Wapping and Limehouse as late as the sixteenth century; the Isle of Dogs was often submerged, and the whole valley of the Lea and rich lands of South-Essex were inundated. At last the work was accomplished, and the Thames was made an artificial river almost from Richmond to the sea.

The most extensive, and probably the



most interesting work of reclaiming land, took place in the district known as the Great Level of the Fens. Not many centuries ago, the vast tract of low country situated around the junction of Cambridge, Norfolk, Huntingdon, and Lincoln, extending sixty or seventy miles north and south, by twenty to thirty broad, and embracing an area of some six hundred and eighty thousand acres of what is now the richest land in England, was a desolation of waters. The Witham, Welland, Glen, Nene, and Ouse poured forth their vast floods from the midland countries, mingling and winding by many channels to the ocean, and forming an inland sea in winter, and a swamp in summer, swarming with fish, and screaming with wild fowl. These rivers were loaded with silt, which ever and anon accumulated so as to choke up the channel, and compelled the intercepted waters to force new courses through the ooze, which often wound back upon themselves, and at last drained away into the Wash. Hence the numerous abandoned beds of old rivers still traceable—the old Nene, the old Ouse, and the old Welland; and thus the Ouse, which formerly flowed into the Wash at Ouse beach, or Wisbeach, now enters it at King's Lynn, near which there is another old Ouse. But probably all the rivers first flowed into a lake, on what is now the Great Bedford Level, from thence finding their way by numerous and shifting channels into the sea.

The largest deposits of silt were along the shores of the Wash, and in the course of ages they rose above the level of the inland districts. The Romans seized the advantage, and reclaimed the part now known as Marshland and South-Holland, by means of bulwarks and causeways that may still be traced. It is believed that they also constructed the great drain called the Carr Dyke extending from the Nene to the Witham, than which, said Rennie, "a more judicious and well-laid-out work I have never seen." But the erection of embankments to shut out the salt water closed in the fresh, and, in consequence, the Fen lands in winter were flooded till so late a period as the middle ages, when there was water enough in the Witham to float the ships of Danish rovers as far as Lincoln. Here and there, amid the flooded Fen lands, an island arose, which became inhabited; one of these was the Isle of Ely, or Eely, so

named, it is said, from the eels that abounded. Here a nunnery was established, and a town erected; and after being destroyed by a fleet of pirates, it was rebuilt; a church sprang up, and the ecclesiastical fame of the place spread so far that Canute determined to visit it. So stormy, however, was one of his voyages from Ramsey to Peterborough—across what are now the fruitful corn-fields of Whittlesea Mere—that he ordered a channel to be cut through the Fen, which is still known by the name of the "King's Delph." This region was long the retreat of a lawless and marauding population, and at Ely the Saxons made a last desperate struggle against the invading Normans.

The Fen islands of Crowland, Ramsey, Thorney, and Spinney, are known in history. They rose at intervals amid the dreary level of water, their soil at first so soft and boggy that a pole might be thrust into it for yards; they were overgrown with rushes, flags, and sedge; and the atmosphere was laden with pestilence—"full of rotten harrs." Such a spot seemed to have especial attractions for one Guthlac, the saint of the Fen islands, and he induced a fisherman to land him at what is now known as Croyland. Here, we are told he built a hut, in a hollow on the side of a heap of turf; other votaries joined him; they embanked and cultivated the ground till it became a little oasis amid the desolation. A stone building replaced the first wooden oratory; pilgrims came from far; a village and town were erected; causeways, embankments, and drains stretched further over the fens, and more land was reclaimed, until the wealthy monastery of Croyland became the center of an influential and comparatively populous region.

All these efforts to reclaim the fens were, however, partial and imperfect. Sometimes the draining of one spot caused the water to flood elsewhere; sometimes it made a previously navigable channel too shallow for service, or was diverted from a mill it had worked; and, occasionally, the accident of a night would destroy the labor of years. Many were the vicissitudes thus experienced; and so late as 1607, a series of destructive floods burst the embankments, swept away farms and villages, and did immense damage. King James made efforts to prevent the recurrence of these disasters; but they

were at first of little permanent service, and it was not till he resorted for help to the engineers and skilled drainers of Holland, that effectual measure were adopted.

Nothing could be more dreary than the scene presented by these fens. "In winter, a sea without waves; in summer, a dreary mud swamp." Round the borders lived a thin and haggard population of "fen slodgers," or "yellow bellies," as they were sometimes called, from the frog-like life they led, and it was satirically suggested that they were web-footed. They are spoken of by cotemporary writers as "a rude and almost barbarous sort of lazy and beggarly people;" and Camden describes the country between Lincoln and Cambridge as 'a vast morass, inhabited by fen-men, a kind of people, according to the nature of the place where they dwell, who walk high upon stilts, apply their minds to grazing, fishing, or fowling.' The proverb of "Cambridgeshire camels" probably originated in the practice of walking on stilts. "In the winter time," said Dugdale, "when the ice is only strong enough to hinder the passage of boats, and yet not able to bear a man, the inhabitants upon the hards and banks within the fens, can have no help of food, nor comfort for body or soul." At those times the Bishop of Ely went by boat to Cambridge. The inhabitants of the fens were often alarmed by the sudden swelling of the Ouse, which gave occasion for the cry, "The bailiff of Bedford is coming!" while attacks of ague produced even more alarm, and originated the saying, that a man was "arrested by the bailiff of Marshland."

The first adequate effort for the reclamation of these regions was made by Cornelius Vermuyden, and he also accomplished many other important engineering works. He was invited to come over in 1621, to repair a breach in the embankment of the Thames, at Dagenham. He then drained the park at Windsor; reclaimed Convey island, at the mouth of the Thames; Sedgemoor, in Somersetshire, and Brading Haven, in the Isle of Wight. In 1626, Vermuyden had the reclamation of the district of Hatfield Chase intrusted to him, being supported in the work by Dutch capitalists; and he and his partners being promised one third of the lands they recovered as their reward. This Chase forms a part of the extensive district of Axholme, and be-

longed to James I. It contained about seventy thousand acres. The region greatly resembles the Great Level of the Fens. It is a fresh-water bay, formed by the confluence of the rivers Don, Went, Ouse, and Trent, which bring down into the Humber the rain-fall of Yorkshire, Derbyshire, Nottingham, and North-Lincoln. In the middle is the elevated ground of the Isle of Axholme, and stretching around it—where now may be found some of the richest corn lands of England—was a wide sea and extensive fisheries.

But the drainage works were not accomplished without the most serious opposition of the wretched inhabitants of these regions. True, they alternately shivered and burned with ague, and became deformed with rheumatism; but they enjoyed a kind of wild liberty. The fens were their "commons," where their geese grazed; the floods brought fish and water-fowl; and they hated the "adventurers" who thought to improve "our own demaynes" by turning them into corn-lands and pasturage. In *The Poete's Complaint*, they deplored, in such strains as the following, the injury contemplated against them:

"Come, brethren of the water, and let us all  
assemble,  
To treat upon this matter, which makes us  
quake and tremble;  
For we shall rue, if it be true, that fens be  
undertaken,  
And where we feed, in fen and reed, they'll  
feed both beef and bacon.  
Behold the great design, which they do now  
determine,  
Will make our bodies pine, a prey to crows  
and vermine;  
For they do mean all fens to drain, and  
waters overmaster—  
All will be dry, and we must die—'cause  
Essex calves want pasture."

But they were not content to sing their sorrows: they expressed them in more objective forms. Thus, on one occasion, after many years had been employed in draining, inclosing, and cultivating an extensive and fertile district between Tattershall and Boston, a mob assembled, leveled the inclosure, burnt the houses and crops, destroyed the cattle, killed many of the occupiers, and so cut the embankments and dammed up the drains as to inundate the surrounding country. But, despite all opposition, Vermuyden prosecuted his various schemes. He ob-

tained a supply of one thousand men from the Scotch prisoners taken at Dunbar, and five hundred Dutchmen, captured when Blake defeated Van Tromp; and at length completed the drainage of the great Level of the Fens. In order to defray the cost of these enterprises, he had to sell every acre of the lands he had before reclaimed. Heavy demands were made upon him, which he could not meet, and he applied to Parliament for redress. We subsequently lose sight of him; and, after all the benefits he had conferred on others, it is to be feared that he died abroad, a poor, broken-down old man.

Other men carried on the works which Vermuyden had begun. Kinderley proposed to convey the Ouse and the Nene into the center of the Wash, there to unite with the Welland and the Witham; and, by confining the waters, and giving strength to the current, to secure increased depth in the channel. But it was reserved for Rennie to complete the enterprise, so that even Whittlesea Mere and Ramsey Mere have at last been turned from lakes into farms and farmsteads, and "The Isle of Ely" has become as salubrious as Pau in the Pyrenees.

From land reclaiming, rivers, and mining, we turn to traveling and road-making. Roads are literally the pathways of civilization. For centuries after the Romans left England, their highways remained the best in the land. But time and traffic, the forest and the waste, almost obliterated them. Our roads became among the worst in Europe, and laws were passed enjoining that bushes and trees beside roads that led from one market town to another should be cut down for two hundred feet on either side, to prevent robberies. In 1346 Edward III. authorized a toll to be levied for the repair of the road leading from St. Giles-in-the-Fields to the village of Charing. Chancellor Cowper wrote, in 1690, that the Sussex roads were "bad and ruinous beyond imagination." Fuller saw a lady drawn to church in a coach with six oxen. A specially miry road was called "the Sussex bit;" and it was said the reason why the Sussex girls were so long-limbed, was because the stiffness of the mud compelled them to pull out the foot "by the strength of the ankle," till both muscle and bone became lengthened. No wonder that in those days Queen Elizabeth preferred, when she went into the city, to ride on a

pillion behind her Lord Chancellor. The royal vehicle was little better than a cart without springs; and, at one of the first audiences she gave the French ambassador, in 1568, she told him of a jolting she had received in it a few days before.

The first extensive maker of roads was "Blind Jack of Knaresborough." He was born 1717; and, when six years old, lost his sight by small-pox. But his subsequent history was so remarkable that it has been suggested that his blindness was partly simulated; though of this there is no direct evidence. He joined in all the sports of boyhood, went birds'-nesting, delighted in horse exercise, coursed hares, swam well enough to save three lives, and became skilled with the fiddle. Subsequently he made money, bought a horse, followed the hounds, and ran races at the village feasts. On one occasion he rode in a match in Knaresborough Forest, where the ground was marked out in a circle of a mile. He procured a number of dinner-bells, set men to ring them at the several posts, kept the ground, and won the race. After this success, a gentleman who owned a notoriously runaway horse, laid Metcalf a wager that he could not gallop the horse fifty yards and stop him within two hundred. Again Metcalf's ingenuity availed him. As he was allowed to choose his ground, though not near a hedge or wall, he proceeded to Harrowgate Old Spa, and told a man to sing on the neighboring bog. The blind man then mounted, and rode for the morass, and he had not reached the two hundred yards before the horse sank to the saddle-girths, and Metcalf scrambled out, the victor. But it was only with the greatest difficulty that the horse was extricated.

On one occasion, Metcalf acted as a guide to a belated gentleman, at dusk, along the difficult way from York to Harrogate. The road was then full of windings and turnings, and, in many places, it was no better than a track across uninclosed moors. Metcalf brought the gentleman safe to his inn, the "Granby," late at night, and was invited to join in a tankard of negus. On Metcalf leaving the room, the gentleman observed to the landlord: "I think, landlord, my guide must have drunk a great deal of spirits since we came here." "Why so, sir?" "Well, I judge so from the appearance of *his eyes*!" "Eyes! bless you, sir,"

said the landlord, "don't you know that he is *blind*?" "Blind! what do you mean by that?" "I mean, sir, that he can not see—he is as blind as a stone." "Well, landlord," said the gentleman, "this is really too much: call him in." Enters Metcalf. "My friend, are you *really* blind?" "Yes, sir," said he; "I lost my sight when six years old." "Had I known that, I would not have ventured with you on that road from York for a hundred pounds." "And I, sir," said Metcalf, "would not have lost my way for a thousand."

This was the man who distinguished himself as a road engineer, and who built bridges, culverts, and retaining walls, which are still unsurpassed. About the year 1765, a turnpike road was to be constructed near Harrogate; he undertook a sub-contract for three miles; and this was the first of a vast number of projects in which he was subsequently engaged for more than thirty years, during which he made about one hundred and eighty miles of turnpike, for which he received some sixty-five thousand pounds. "With the assistance," says one who knew him, "only of a long staff, I have several times met this man traversing the roads, ascending steep and rugged heights, exploring valleys and investigating their several extents, forms, and situations, so as to answer his designs in the best manner. The plans which he makes, and the estimates he prepares, are done in a method peculiar to himself, and of which he can not well convey the meaning to others. Most of the roads over the Peak in Derbyshire have been altered by his directions, particularly those in the vicinity of Buxton; and he is at this time constructing a new one betwixt Winslow and Congleton, to open a communication with the great London road, without being obliged to pass over the mountains."

His skill in overcoming difficulties was well illustrated in the formation of the Huddersfield and Manchester road. He undertook to make it at a certain price a road; but when tracked out he found that it would cross some deep marshy ground on Pule and Standish Commons, and the trustees told him that he must dig out the bog nine feet deep by fourteen yards, till he came to the solid bottom on which the road must rest. He expostulated at the costliness and inefficiency of the arrangement; and at length

they consented that he should adopt his own method of crossing the marshes, but if unsuccessful, he should, at his own expense, obey their surveyor.

Metcalf first dug a deep ditch along either side of the intended road, and threw the excavated material inward so as to raise it to a circular form; keeping his arrangements as far as possible a secret. Meanwhile, the Yorkshire clothiers declared that the contractor and his men would have to be drawn out of the bog by the hair of their heads. His method was precisely that afterward adopted by George Stephenson in crossing Chat Moss, and consisted in so extending the bearing surface that the road could actually float on the bog. He accordingly ordered heather and ling to be bound together in little round bundles; these were placed in rows in the direction of the line of road, other bundles were laid transversely; and when these were pressed firmly together, stone and gravel were brought on broad-wheeled wagons, and made into a firm and level way. The spectators expected to see horse and load disappear in the morass, and loudly expressed their gratification when their fears were found to be needless. This part of the road proved to be one of the best and driest, and required very little repair for nearly twelve years. The last road Metcalf constructed was between Haslingden and Accrington—one of the most difficult he had made. "During the late years of his career he occupied himself in dictating to an amanuensis an account of the incidents of his remarkable life; and finally, in the year 1810, this strong-hearted and resolute man—his life's work over—laid down his staff, and peacefully departed, in the ninety-third year of his age, leaving behind him four children, twenty grandchildren, and ninety great grandchildren." We now turn to a new chapter of English engineering.

The "ever-watery west" wind that passes over the undulating surface of Great Britain has necessarily made it a land of "rivers and fountains of waters," and these, of course, have always affected the intercommunication of the people. At the place where a river was fordable a village or town would spring up, and thus Oxford, Chelmsford, Romford, and Stamford, arose. But there were many rivers which, at least in winter,



were not fordable, and other means of crossing them had to be adopted. An uprooted tree thrown from bank to bank early served this purpose, and more permanent structures followed. The most ancient bridges now remaining are over the streams of Dartmoor, where the turbulent waters that roar down the deep gorges would have swept a light structure away, but where granite blocks could be laid upon one another to serve as piers, and others might stretch from pier to pier, so as to form a tolerably level road for man and beast. The Egyptian-looking bridge of Dartmouth is such a structure; it has survived the fury of the Dart for twenty centuries, and others of a similar kind may be found in that region.

The modern revival of the art of bridge-building was inaugurated by William Edwards, a self-taught genius, of Glamorganshire, born in 1719. As a young man he spent much of his leisure in studying the neighboring ruins of Caerphilly Castle, the massive remains of which extended over an area of thirty acres. Subsequently, despite extraordinary difficulties and discouragements, he constructed the beautiful "rainbow bridge" of one arch than spans the Taff at Newbridge; he afterward built the bridge over the Usk, and several others, his later productions being a manifest improvement over the earlier.

"'Not even on Sundays,' says Mr. Smiles, 'did he cease from his labors; but, though the Sabbath was no day of rest for him, his labors then were all labors of love. In 1750 he became an ordained preacher amongst the Independents. Shortly after he was chosen minister of the congregation to which he belonged, and he continued to hold the office for about forty years, until his death. He occasionally preached in the neighboring meeting-houses; amongst others in that of Mr. Rees, the father of Abraham Rees, editor of the well-known *Encyclopædia*. Holding it to be the duty of every religious society to contribute liberally of their means to the support of their ministry, he regularly took the stipulated salary which his congregation allowed to their preachers, but distributed the whole of it amongst the poorer members of his church, often adding to it largely from his own means. This worthy Christian laborer died at the advanced age of seventy, respected and beloved by men of all parties.'" His sons were eminent bridge-builders.

In a wild part of the country between Buxton, Leek, and Macclesfield, there was

once a hamlet and district called "The Flash." The people were notorious for their wild and half-barbarous pastimes. They squatted on the waste lands, they encroached on the surrounding estates, their pedestrian hawkers sold wrought buttons in silk, mohair, and twist which were manufactured at Macclesfield, and as they traveled from fair to fair, using a slang dialect, they were generally known as "Flash men;" the name though not the race survives. In this region and among such neighbors, James Brindley was born in 1716. His father was a collier, and neglected his family, but his mother was prudent, and did her best to instruct her children in all the little that she knew. James worked as a common laborer till he was seventeen, but his mechanical tastes early displayed themselves, and he was especially clever with his knife in making models of mills which he set to work in neighboring streams. In 1733 he was apprenticed to Abraham Bennett, a wheelwright and millwright, of Sutton, near Macclesfield. At this period, millwrights were the only engineers, and they effected repairs in machinery as well as they could by the aid of the lathe, the bench, and the anvil; and as the demand for mechanical skill increased they became persons of growing experience and importance, and, ultimately, such men as Brindley, Meikle, Rennie, and Fairbairn, rose from the millwright's shop to the highest rank as scientific engineers.

Brindley's advantages, however, were few, and his progress slow. His master was of intemperate habits, and neglected his apprentice; the journeymen rather hindered than aided him, and he worked his way to success only through a series of blunders. On one occasion this mere "spoiler of wood," as he was called, made such a "mess" of a piece of common wheelwright's work, that his master threatened then and there to cancel his indentures, and send him back to be once more a farm laborer. Two years passed and Bradley had, in Bennett's opinion, learned next to nothing, though in reality he had been groping his way to much practical knowledge; and in the autumn of 1735 he accomplished some repairs in a silk-mill at Macclesfield, in a manner to the satisfaction of the mill superintendent, the surprise of his master, and the mortification of his fellow-workmen, who

had been accustomed to sneer at the "bungling apprentice." "I can yet remember," said Brindley, many years afterward, "the delight which I felt when my work was fixed and fitted complete; and I could not understand why my master and the other workmen, instead of being pleased, seemed to be dissatisfied with the insertion of every fresh part in its proper place."

Before his third year of apprenticeship had ended, the master admitted that Brindley was not the "blundering block-head" that his men had thought him. The neighboring millers would especially request "the young man Brindley" should be sent rather than any other workman, and some preferred him to his master. Bennett was surprised, and inquired of Brindley where he had learned mill-working; to which the apprentice could only reply that it came "natural-like." The master now chided him for making his repairs too well. "Jem," said he, "if thou persist in this foolish way of working, there will be very little trade left to be done when thou comes out of thy time: thou knows firmness of works th' ruin o'trade." Brindley, however, refused to adopt the unprincipled suggestion. He subsequently began business on his own account at Leek, in Staffordshire, at first without apprentice or journeyman.

Between Leek and Trentham lay the little town of Burslem, where inferior earthenware was manufactured, and whence it was hawked by higglers from village to village on the backs of donkeys. At the beginning of the century, the brothers Elers, the Dutchmen, introduced here from Holland the art of salt-glazing, and subsequently the powder of flints was used as a wash or dip, and was mixed with tobacco-pipe clay. It is said that one William Asbury, of Shelton, noticed at Dunstable the soft and delicate nature of some calcined flints, which an ostler was using as a medicine for a horse's eyes. John and Thomas Wedgwood employed flint-powder in their little business, but were hampered by the want of an adequate supply. They, therefore, conferred with "the schemer," as Brindley was called, and in the course of time he erected several flint-wells in that neighborhood.

The reputation that Brindley thus acquired for extraordinary ingenuity, caused

his name to be mentioned to a Manchester man during some marriage festivities at Burslem, whose coal-mines at Clifton were "drowned out." Brindley was sent for, and the remedies he suggested appeared so satisfactory that he was directed to put them into execution. The Irwell bounded the estate, and had a considerable fall. He directed the river through a tunnel in the rock, six hundred yards long, over an immense water-wheel, from the lower end of which the water flowed away into the old channel of the Irwell. The force supplied by the water above overcame the water below, and in a short time the pits were cleared.

Hitherto, the inland communications of this country had depended almost exclusively on roads, such as they were, and on the larger river. The first project for cutting a navigable trench, independently of existing streams, across the dry land, and conveying merchandise upon it, was made by the Duke of Bridgewater. This young nobleman lost his father when he was only five years old, and all his brothers by the time he was twelve, and he was himself so sickly, and his mental capacity, so feeble, that it was in contemplation to set him aside in favor of the next heir. His mother remained a widow only a few months, and from that time neglected her child. Horace Walpole wrote in 1761: "You will be happy in Sir Richard Littleton and his duchess; they are the best-humored people in the world." But it appears that the good humor of the handsome couple was so lavishly displayed in public that there was little left for domestic use. The young Duke, however, grew up to manhood, traveled a gay and careless life, kept race-horses, and occasionally rode them, and once ran a race with the Duke of Cumberland on the long terrace at the back of the wood in Trentham Park. At that time he was so slight in build, that Lord Ellesmere says a bet was facetiously offered that he would be blown off his horse.

A love affair changed the current of his life. He was on the eve of marriage with the beautiful widow of the Duke of Hamilton, who had been the comparatively portionless daughter of an Irish gentleman; but the match was broken off. The lady, however, soon solaced herself with another husband, in the person of John Campbell, afterward Duke of Argylo.

"You and M. de Bareil," said Horace Walpole, writing to Marshal Conway, "do not exchange prisoners with half as much alacrity as Jack Campbell and the Duchess of Hamilton have exchanged hearts. It is the prettiest match in the world since yours, and every body likes it but the Duke of Bridgewater and Lord Conway." The Duke, however, instead

of resigning himself to misanthropy at his beautiful seat at Ashridge, devoted himself to business at his estate near Chat Moss, and we soon find him conferring with John Gilbert, his land-steward, as to the formation of a coal-canal from Worsley to Manchester.

[TO BE CONCLUDED.]

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From the Temple Bar Magazine.

## THE BATTLE OF THE ETHNOLOGISTS.

AMONG the wars and rumors of wars which give us small and great tribulations, not the least perplexing in the anticipation is the coming grand fight of the ethnologists. Already have we been agitated by preparatory skirmishings; and we are now looking forward with a befitting horror to a tremendous engagement, which will bring into action the great guns of science, and the horse, foot, and dragoons of reviews, magazines, and newspapers.

Before the combat deepens, and the smoke of battle covers the field, we propose to take a glance at the questions involved, and the marshaled forces of the eager and exasperated belligerents, that we may the better understand the future Austerlitzes and Waterloos, the Bull Runs and Donelsons, of the opening campaign.

Dropping our metaphor, which grows too hot for long handling, let us take a glimpse at the great question which bids fair to occupy the minds of scientific and theological controversialists until it is—shall we say, settled?

Unsettled, rather. Have we not rested quietly in the time-honored faith of our ancestors—that all mankind are the descendants of Adam and Eve, and that, when the earth was drowned in the great Deluge, Noah became our second sole progenitor? The common faith in the declaration of Scripture, "that God hath made of one blood all the nations that

dwell upon the face of the earth"—so that all men are brethren of one great family—is assailed by men of science, whose theories, if sustained, must either set aside the inspired word, or force us to give it new interpretations, if it be possible, by any interpretation, to reconcile it with the demands of the new philosophy.

It is not the first time. We have had, during the past century, several strong battles over the same ground. Astronomy, physical geography, and geology, have all been brought in turn against faith in Revelation. The telescope was to demolish the Pentateuch, and sweep all superstitions out of the minds of men, as a broom sweeps cobwebs from a neglected chamber. The Deluge was declared a physical impossibility. The geologists ridiculed the Mosaic account of the Creation. Well, vast numbers of people became well versed in astronomy, in physical geography, and, to some extent, in geology. Do we find that religion has suffered in consequence? There is a more solid faith and a more earnest piety to-day than in the middle of the eighteenth century.

The new assault upon generally received religious and historical ideas, it may be confessed, assumes, at the first glance, a somewhat formidable appearance. The ethnological polygenesisists assert that, during the whole historic period, there have existed the same differences in the human races that are seen at the present

time. The sallow, oblique-eyed, flat-faced, and high-cheek-boned Mongolian was the same three thousand years ago that he is to-day. The negro, from tropical Africa, as he is represented upon the oldest monuments of Egypt, is the same black-skinned, woolly-headed, thick-lipped, flat-nosed biped that we find him after thirty centuries have rolled over him, without improving, or perceptibly changing, either his physical aspect or social condition, except in those cases in which he has been brought into an involuntary pupilage to a higher race and civilization. Then, as now, his small brain was set behind, rather than above, his projecting face, and he was the hewer of wood and drawer of water—the captured or purchased slave of his white or tawny brother; and the oldest statue or picture, rude Egyptian painting, or sculptured tablet from Nineveh, which dates back nearest the Deluge, represents the lofty-browed Caucasian as we see him to-day. Change but slightly the costume of the Egyptian who now guides the traveler among the ruins of Thebes, and many of the ancient statues would answer for his portrait.

It does not do, then, to say that white men of the Caucasian type have gradually changed to yellow Mongols, or Red Indians, or negroes, by the influence of climate and temperatures. They have not changed in three thousand years. We have no reason to believe that the negro would become a Caucasian in England or in Nova-Zembla in a thousand generations, or that the posterity of Englishmen living in the heart of Africa would ever be changed to negroes. They might grow very dark-complexioned even in a single season; but a dark-complexioned white man is very far from being a negro, or an Indian, or a Japanese, or an Australian. The theory of gradual climate changes must, we think, be abandoned, and the monogenesists must withdraw or spike their guns, and fall back upon a new line of defenses.

This quarrel of the mono- and polygenesists, to borrow an economical bit of wordcraft from our Teutonic neighbors, is a very pretty one as it stands; but it is complicated by the theory, boldly advanced, and maintained in high quarters, that men were not created at all, either in a single race or type, or in three, five, eleven, or whatever number of distinct races may be claimed by the most advanced

polygenesists. According to the developmentists, who have got rid of all necessity for a creation, and have by consequence no use for a creator, the various races of men, as well as other animals, grew, or gradually developed themselves in the progress of ages, from lower forms of animal life, beginning with the animalcule, which seems but a point of animate existence. As to how they begin no notion is given us; but we are to suppose that all the myriad forms of animal life have been self-developed, under the influence of external circumstances, and by the stimulus of internal desires, from those germs of being, whose origin and constitution must puzzle the boldest speculator. An animalcular globule, for example, finds itself hungry, and with long and patient effort develops a mouth and digestive apparatus. Pursued by other hungry animalcules, it either puts out a tail or other propelling apparatus to enable it to swim away from its enemies; or, in the cold perspiration of fear, it secretes a shell to protect itself from their voracity; or, if gifted with courage and a belligerent disposition, it grows weapons of offense and defense. Encouraged by the success of such efforts, and expanding with ambitious desires or pressing appetites, these self-made people of the seas become fishes, and then lengthen into sea-serpents, or thicken into whales. Some, taking a fancy to an agreeable promenade on shore, grow themselves legs, and become ichthyosaurs and alligators. Of these, some find their big, unwieldy tails an inconvenience, and they drop them, like the tadpole when it becomes a frog, or let them dwindle into slender and genteel caudal appendages; while lengthening their legs, and developing a few other trifling capabilities, they become cows, horses, donkeys, and other mammalian quadrupeds. Others, with more volatile aspirations, change their scales into feathers instead of hair, and their forelegs into wings, becoming owls or eagles, herons or humming-birds, according to their several fancies. Where grass is plentiful, crocodiles would naturally become buffaloes; but as these wander off into forests, where grass is scant, and they are obliged to browse on the branches of trees, reaching higher and higher, their necks and legs gradually lengthen, and the humpy little buffalo stretches up into the stately giraffe. Others take to bristles, and root



and revel in the luxury of snouts, ambitious of the glories of prize-porkers in Baker-street bazars. Strangely dissatisfied with even these huge dimensions, they go on expanding in bulk and lengthening in snout, until they stalk before us the elephants of Astley's and the menageries. Cowardly-spirited animals develop good legs for running, as the elk or the antelope; while the fierce and brave get to themselves savage claws and teeth, and, despising herbage and fruits, adopt an exclusively carnivorous diet.

Living in tropical forests, where lofty trees are covered with delicious fruits, animals with hoofs or clumsy paws would try in vain to climb them. But in a few generations such wishes and efforts change the hoofs and paws into hands, expressly adopted to climbing trees and plucking their fruits; and nature rejoices in many tribes of monkeys, of various sizes, colors, and forms, according to the varying aspirations of their self-creating and industriously-developing progenitors. Some of these human approximations cultivate their tails, and find them both useful and ornamental; but the larger, stronger, graver, and more dignified of our four-handed relations get tired or ashamed of these ridiculous appendages, which straightway shorten, and then disappear. We have come now to the chimpanzee and gorilla. They have four hands and "nary" tail. It occurs to some of the more enlightened of these gentlemen of the forests, that if they were to lengthen their hind-legs, and walk upright, it would improve their personal appearance. The posterior hands gradually subside into feet, their thumbs become great toes, and, *voilà!* **MAN** walks upon the scene; and we have only to carry the developmental process a little further to account for the existence of all the human races. Soon a Homer sings, a Plato reasons, a Demosthenes thrills us with eloquence, a Praxiteles gives us ideal beauty in marble, a Phidias makes it glowing with the colors of life. Science, Philosophy, Poetry, Art, are the glorious climax of development, until after ages of progress, a Du Chaillu finds, and a Spurgeon improves upon, the wonderful animal whose aspirations made him the transition-link between the brute and human results of the theory of development.

It is a nice theory, and has only a few slight difficulties. It requires a potent

intelligence in each individual form, molding the physical, and gradually changing it in correspondence with its own growth and aspirations. Atoms of unknown origin, self-expanding through successive generations, by growing necessities, or desires, or caprices, until they become sharks or whales, geese or nightingales, rats or elephants, kangaroos or gorillas, open to us a view of animated nature which some may consider sublime, but which to us seems full of absurdities.

It is quite true that man has existed since the period of records and monuments without much change in his physical conformation, and with the same striking differences of race that now exist; but the same is true of the whole animal creation. Horses, dogs, cats, sheep, camels, lions—all birds, beasts, fishes, and insects—have been the same as far back as we can trace them. Other races have existed, and become extinct; but we find no marks of transition into the existing races. In three thousand years there have been no such changes. There is nowhere the slightest appearance of the lower forms of life changing to higher. The oysters on our coast are doubtless the same coppery bivalves that they were when Julius Cæsar made his first meal off them upon the sands of Dover; and the donkey in our streets, drawing his load of cabbages, is no improvement upon the beast that gave a lesson to Balaam. If the law of development ever existed, it must have ceased to act some thousands of years ago. Progress has made a halt, and all animate existences have forgotten their aspirations.

It is true that no man can stand before a cage of monkeys, or see a cleverly-trained one exhibited in the street, without an awkward feeling of possible relationship. The imitation is too close to be agreeable. But when a careful comparison is made, this feeling vanishes. There is a wide difference between the highest type of the Caucasian and the lowest Bushman or Australian; but he who pretends that the lowest human being that walks the earth is a nearer relation to the gorilla than to himself, has not given the subject a proper examination. He should go at once to the British Museum, and inspect the skeleton, and particularly the skull, of the gorilla. It is the head of a beast. Its brains are not one fifth the size of the smallest normal human brain

ever exhibited. Its skull is more like that of a tiger than of a human being. With the first look at the naked skeleton all idea of relationship vanishes. It is true that there are other specimens of the monkey tribe, with larger brains in proportion to their size; but there is no resemblance which can give one moment's support to the idea that any ancestor of Homer or Shakspeare was ever even a chimpanzee. Place the skulls of all the varieties of humanity side by side in a descending series, and we find a well-marked gradation—an improvement from the lowest to the highest, or a degeneration from the highest to the lowest. Now, by the side of the lowest form of the human head place the highest that ever existed in the dumb races that mimic humanity so execrably, and you have, instead of a single step in a gradual series, an immense gulf, which it would require a long chain of gradations to fill. In one you have a man, gifted with speech and reason, capable of education and improvement, with an intellect which can expand until it measures the stars and invents systems of ethnology; in the other a brute, which can never be capable of human speech, or reason, or faith: a cunning brute, perhaps, but not equal to the dog, or horse, or elephant, either of which would be for us a more respectable relative than the finest specimen of the four-handed favorites of the Zoölogical Gardens.

But let us return to the question of races, which does not necessarily depend upon the theory of development. What are the reasons for believing that humanity is one, and that all men are descended from a single pair? As religion is a matter of faith—though it must, of course, be consistent with reason, even in its higher sphere—we leave it out of the question. It may satisfy ourselves to settle a scientific question by the authority of Scripture; but we have no right to require that others should be satisfied with the same authority. The first scientific evidence which we should offer of the unity of the human race is the fact of the universal recognition of such unity. Beneath all varieties there is a "human nature," in which all men feel themselves to be united; one touch of which is said to make "the whole world kin." This feeling or instinct of relationship is a proof of no trifling value. A more tangible argument

is found in the evident relationship of human languages. However we may account for a single race speaking two thousand different dialects, it would be still more difficult to account for the similarities of structure, and even of words, in the languages of different and widely-separated races, having different origins.

Universal tradition is a fact of great power. Every nation which has preserved traditions, has some which can be traced to one original. The tradition of a deluge, for example, has been found in Asia, Africa, America, and Polynesia. There can scarcely be a greater proof of identity of origin than common traditions.

The intermingling of races, and the formation of new and persistent types by such intermixture, if it can be demonstrated, is a physiological proof of unity of race which can not be disputed; but this persistence may not be considered as sufficiently established. Every instance brought forward will be claimed as another original type or species.

But the great difficulty in the whole subject, as a scientific question, is, that it carries us out of the range of science and out of the sphere of reason. The creation of man is a miracle. The division of man into races may be a miracle also. And a miracle is something beyond our power to explain or scientifically investigate. Science informs us that there was a time when man did not exist on this planet. We can not see that he had any power to make himself, either from the dust of the earth, or from an animalcule or an oyster. The Power and Wisdom which could and did form the intellectual, moral, and physical nature of man, has, without question, the ability to change his character, external, and internal, directly or indirectly, at any time; and it is just as reasonable to suppose that the Almighty, after the creation of a single pair, changed certain persons of their progeny into the types of the existing varieties of the human race as that he made as many different creations. Either one process or the other may be predicated of Omnipotence; and we may as well accept the theory which is consistent with Revelation, with universal tradition, and the common instincts of humanity as one that makes us remote descendants of the toad or crocodile, and near relations to the chimpanzee and the gorilla.

From Fraser's Magazine.

## DIFFUSION OF GASES IN RELATION TO SOCIAL LIFE.

THERE are few subjects on which the mass of intelligent and observant persons are more agreed than that science, in all its departments, is progressing with a rapidity and success unrecorded, if not unequaled, at any former period of the world's existence; nor is it hardly less universally acknowledged that this progress does not rest, as a mere evidence of the astounding capability of man's mental powers to search after and unravel the mighty mysteries of nature's hidden things, but develops itself into practical working, not only challenging the admiration of mankind in its more prominent and obvious features, but unobtrusively insinuating itself into the most ordinary and insignificant acts of every-day life. Nor will it escape the notice and admiration of the friend of social improvement that, disconnected as the results of scientific research may be in their individuality, one single principle forms a bond of relationship and stamps an unity on the whole, a growing tendency to press every suggestive theory, and, above all, every determined fact, into the amelioration of the condition of man, alike as a means of mental culture, and especially of physical improvement to the population at large, where science, to be useful at all, must be brought to bear directly upon the urgent claims of bodily wants.

To chemistry and civil engineering we are mainly indebted for the prodigious advance which the last few years have witnessed in the means and appliances necessary for securing to man those conditions which are essential, first, for the development, and then for the conservation, of his natural capabilities; and especially for shielding him from the noxious operation of those influences to which society, in a civilized and congregated condition, must ever be subjected. To the higher department of chemical research, in its economical and physiological applications, we owe our knowledge of the circumstances under which the

functions of life are most favorably developed, impaired, interrupted, or totally arrested; whilst the civil engineer, calling into action precisely the same principles which have unfolded facts to the chemical philosopher, is enabled, on a greatly exaggerated scale, to produce identically the same results; concealing what is unsightly, expanding what is useful, destroying or removing what is noxious, thus causing human life to be of longer average duration, bringing whole districts otherwise uninhabitable under the dominion of man, banishing squalor for cleanliness, putrid miasmata for wholesome respirable air; and, regardless of all distinctions, diffusing health and cheerfulness, from the prince's palace to the peasant's cot.

Nor is it surprising, that in proportion to the practical importance of the advantages to be attained and the vast range of subjects it embraces, a general desire should be manifested by the public to inform itself respecting them, in such a manner as shall enable the community at large to coöperate with and forward the designs of those who have originated plans for the furtherance of the great objects contemplated; and, indeed, to the want of this information we may almost exclusively trace the tardiness of some corporate bodies to avail themselves of the inestimable advantages which scientific research offers them, as well as the actual prejudice and opposition manifested by the lower classes against improvements from which they are themselves to obtain the greatest share of benefit. And the more is this to be regretted, as the benefit can not be obtained in its completeness but by unanimous coöperation; a fact recognized by the legislature, which has wisely, so far as possible, rendered such coöperation compulsory, though there must of necessity be a large number of cases to which its enforcements can not reach, or where they can be easily evaded. Still, however, it is an encouraging fact that the more intelligent portion of the

community is at length fully roused to the importance of the subject, and that the means of information are at hand and accessible to all who may desire them, varied also in form, and adapted to the requirements demanded, from the more costly scientific treatise to the popular tract. But it necessarily happens that, in the latter of these, there is danger of superficial generalities excluding from notice matters of apparently a trivial nature, but which really embrace the most essential considerations, both in a theoretical and practical point of view.

Such is the case with reference to the subject which stands at the head of this paper.

Few are ignorant of the fact that fluids may be conveniently classed under two heads—those which admit of being placed in closed vessels, but resist any attempt to compress them into a smaller space than they originally occupy—or, at any rate, into a space appreciably smaller, in the ordinary acceptance of the term; and those which, readily yielding to pressure, can be compressed into a space many times smaller than they originally occupied, again expanding to their original dimensions when that pressure is removed. These latter bodies are familiarly denominated gases.

It may, in addition, be known that many of such bodies exist, that they have distinguishing characters, that they may be mixed together mechanically, just as ordinary fluids are capable of being mixed, each retaining its specific characters; or caused to combine in such a manner that new products arise, endowed with new properties, both chemical and mechanical, totally different from either in an isolated condition. It may even be recognized as a familiar truth that the gases, when placed in contact, *can not remain separate*, but manifest an uncontrollable tendency to unite, until of two separate gases one perfectly homogeneous atmosphere occupies the whole of the receiver in which they are confined. But few recognize this property as one of vast practical importance, forming the very key which unlocks the mysteries of many common phenomena, originating a large proportion of the inconveniences which interfere with social comfort, and not unfrequently determine the existence of life itself.

The object of this paper is simply to describe this last-mentioned property with

as little technicality as possible, and show the importance of recognizing its practical relations. For the sake of brevity, also, we proceed at once to mention the gases which will be principally alluded to, enumerating such of their leading characteristics as may present themselves in the course of our inquiry, and, in the first place, of oxygen and hydrogen.

These are two gases with which few are unfamiliar, recognizing the one as a powerful supporter of combustion, being itself incombustible; the other endowed with totally opposite attributes, itself capable of being ignited as it proceeds from a jet or other small orifice, while it instantly extinguishes a taper plunged into it. Most persons have witnessed the combustion of charcoal in oxygen—the brilliant scintillations of iron wire when introduced into it; and the dazzling, almost solar light, thrown out when inflamed phosphorous is surrounded by an atmosphere of this gas. The peculiar small blue flame with which hydrogen burns, and the slight explosion which takes place on plunging a lighted taper into it, are also presumed to be well-known phenomena. These two gases are amongst the most important æriform bodies with which we are acquainted, and are more or less identified with every condition which controls the permanence of healthy progress, and indeed the very existence, of all those functions which in the aggregate are included under the term *life*; and they hold this prominent position in consequence of their being essential ingredients in a series of compounds necessary to the support of every animate body, both animal and vegetable.

We all know also that without the presence of atmospheric air we can not live; and we shall presently see how directly all the powers of life are influenced by this compound of oxygen and nitrogen, and also how an almost infinitesimal amount of contamination with other gaseous compounds, continued for an adequate time, is sufficient to suspend or even destroy vital action. Of these gaseous bodies five are of primary importance, and indeed stand at the very threshold of all the abstruse problems which organic chemistry has, within the last few years, so satisfactorily solved; and the student will do well to pause and make himself familiar with their properties and habitudes before he enters upon



the vast field of inquiry which this interesting department of physical science unfolds.

For our present purpose, however, it will be sufficient to give such a general description as will enable us to understand the main property we have in view—the tendency of these gases reciprocally to insinuate themselves into juxtaposition with each other, and having done so, the influence they exert in reference to social life. These bodies are carbonic acid gas, carbonic oxyd, carbureted hydrogen, sulphureted hydrogen, phosphureted hydrogen, and, lastly, bi-sulphuret of carbon, which, though not a gas, is a highly volatile body, and at a slightly elevated temperature acts as a gas in becoming diffused through the atmosphere.

Now, the first of these is well known to most persons as the air which sparkles up in such liquids as soda-water, champagne, etc., and causes them to effervesce; it is composed of carbon, of which charcoal may be taken as a rough type, and oxygen in certain invariable proportions, not as a mere mixture, but as a chemical combination, effecting a total change of character in the new body which retains but few properties in common with either of the original elements. The *rationale* of these changes is explained in any manual of chemistry, and we must not here dwell upon it. Another property is also familiar to most—its tendency to impede respiration, or, as many would say, to stop the breath—and this phenomenon claims note as a most wise premonitory check to its free inhalation. A spasm is, in fact, produced in the throat, which in due time closes and forms a most powerful valve to prevent the deleterious effects which would result from the admixture of even a small quantity of carbonic acid into the lungs.

Let us now proceed to the next compound—carbonic oxyd. This, again, is formed from carbon and oxygen, but contains only half the amount atomically of the latter. The properties of this body vary considerably from the former, the principal difference which we shall select being that the former is incombustible and extinguishes flame, whilst the latter burns with a blue flame in the presence of atmospheric air. They are both highly deleterious, the latter espe-

cially, as it is more subtle, and furnished with no warning indication of its presence.

We have next to deal with another class of gaseous compounds, in which *hydrogen* instead of oxygen forms an essential constituent. Thus, we meet sulphur combining with hydrogen to form sulphureted hydrogen gas, and by substituting for sulphur, carbon and phosphorus respectively, we produce carbureted and phosphureted hydrogen. But before enumerating the distinguishing properties of these hydrogen compounds, it will be advisable to refer to the sources from which they are derived in the course of that unceasing interchange of elements which we recognize as marvelously characteristic of organic life, in contradistinction to those changes which occur in mineral bodies, or which may be elicited from properly directed chemical operations in the laboratory.

We start, then, with the fact that all organized forms which are capable, under suitable conditions, of performing the definite functions for which they were obviously adapted, do so in virtue of the inherent property which they possess of causing their individual elements to change their mutual relations and originate new forms; indeed, in many cases, it is apparent that the function which the organ is destined to perform consists in the very act itself of producing these, very properly designated, molecular changes. To take a simple instance. Suppose a body to consist of oxygen, hydrogen, and carbon, with oxygen in considerable excess. As we know that these are capable of combining in a variety of ways, we may infer that the homogeneity of the substance may be broken up, and that the elements may pair, in the one case oxygen combining with hydrogen to form water, whilst another portion of oxygen combines with carbon to produce carbonic acid gas. The assumed organized body composed of oxygen, hydrogen, and carbon, capable in that condition of performing acts of life, has then been, so to speak, broken up into two bodies which have stepped out of the rank of vital agents; and this is, in fact, a change constantly occurring in a large class of organic groups. Let us now imagine that a body standing still higher in the list of organized forms is composed of oxygen, hydrogen, carbon, and nitrogen. These,

again, we know are capable of combining in pairs; and if certain proportions of the elements are present, we may find the oxygen and hydrogen uniting to form water, another portion of oxygen with carbon to form carbonic acid, and another portion of the hydrogen with nitrogen to form ammonia. Or we might suppose the change to progress still further, and that another portion of carbon combines with oxygen to form carbonic oxyd, whilst another portion of carbon unites with hydrogen to form carbureted hydrogen gas. Thus, from one homogeneous body, we have in one case deduced three, in the other five, sets of pairs or binary compounds, and legitimately so, as these are not mere hypothetical changes, but amongst the most familiar to those who are engaged in studying the phenomena of life by the aid of organic chemistry.

But we must now advance to a still higher group, which, in addition to the elements we have enumerated, assume two others — sulphur and phosphorus — and it is these most important and highly organized forms that we shall be principally concerned with, when we come more especially to trace the results of their decomposition, as having become gases, and submitted to the process of *diffusion*. Not, however, to forestall what will more conveniently be treated of as we advance, let us recognize the capability of an organized form made up of these bodies, and in such a way as shall constitute an instrument fit to perform specific duties under the influence of vitality, to become disintegrated, and in the act of breaking up, to rearrange its ultimate constituent parts or molecules into pairs in a manner precisely analogous to the process already alluded to. We have clearly the materials before us to form the following binary compounds — water, from the union of oxygen and hydrogen; carbonic acid, from carbon and oxygen; ammonia, from hydrogen and nitrogen; sulphureted hydrogen, from hydrogen and sulphur; and phosphureted hydrogen, from hydrogen and phosphorus. We may in like manner have carbonic oxyd and sulphuret of carbon from an obvious mixture of their respective elements. Now, it is an error to imagine that there is any thing arbitrary in such assumptions, for they are warranted by the very substances actual-

ly placing themselves before our eyes during the decomposition of animal and vegetable forms, which decomposition is nothing more nor less than the unfolding of the processes we have mentioned. Or, if not rendered perceptible to the senses, the hypotheses assumed are in perfect accordance with nature's operations and the fair consequence of legitimate deduction. It is true, that over a very extensive range we have our senses to appeal to, and to check any danger from speculation; demonstrative evidence of this kind can not but be conclusive. We should, however, be excluding ourselves from the knowledge of most important practical facts if, with a due regard to the nature of the materials we are working with, we were altogether to banish moral or probable evidence from our researches. If it be fair to recognize the fact that a planet is perturbed from what should be its normal orbit, and then, assuming that this disturbance can only arise from another undiscovered planetary body, to proceed with a variety of probatory calculations as to the position in which that disturbing mass must be located, and with what amount of mean attraction to produce this disturbance, it is equally legitimate to take hold of any of the numerous facts within the range of vital force, and explore the conditions which must be fulfilled in order that the observed phenomena may be brought about, always remembering of course, with the utmost jealousy, to observe the line of demarkation between probable and demonstrative evidence.

But to return from this almost necessary digression. We have now added to our list two other compounds which will shortly be viewed as operated upon by the property of diffusion, and briefly describe their principal characters in order. Thus:

Sulphureted hydrogen is a most offensive gas, not unfamiliar to those who have visited Harrowgate or any other of the numerous sulphur spas. It is not only offensive but, even in moderate quantities, highly injurious; in large volumes, fatal to life. The sensitiveness to its influence seems to vary in different animals; it is stated on good authority, that a horse is injuriously affected by it when diluted with some thousands of its bulk of atmospheric air. Its presence may also be inferred from its tendency to

blacken silver and some other metals; the principal property, however, which will come within our subject is the one above stated.

Phosphureted hydrogen.—Those who have not engaged in chemical pursuits may not be so familiar with this as the preceding gas, although, together with that, it is freely evolved during the decomposition of white of egg and its analogues, generally known as albuminous bodies; very copiously, indeed, by putrifying fish. It is most poisonous when brought into contact with blood; and the writer has reason to believe, from observation, that during the raging of epidemic cholera, this gas, evolved by putrid fish on the sea-coast, and introduced in the animal system with stale fish as food, is a powerful agent. There are various other interesting properties of this gas, as prepared in the laboratory, but we shall confine ourselves to its influence on vital functions.

Carbureted hydrogen.—This light and inflammable gas is one of very evil repute, and constitutes the fire-damp so fatally known in the coal districts; when mixed with from eight to ten volumes of common air it explodes with awful violence, forming highly-expanded steam and carbonic acid gas, with which we are already familiar; thus the unfortunate miner is in peril of being blown up, with all its concomitant dangers of falling materials, etc.; and should he escape injury from these, he is frequently smothered with carbonic acid gas, or choke-damp, as it is locally called.

The last body to which we have alluded, bi-sulphuret of carbon, is, as its name implies, a compound of carbon and sulphur. Unlike those we have mentioned above, it is a fluid, though very volatile, and of a most offensive odor; this is also a common product of decomposition of all organic bodies which contain its elements, at a slightly elevated temperature, and in consequence of its volatility, diffuses itself through the air, in some cases very materially vitiating its purity; our inquiry would therefore be incomplete without recognizing its presence.

But, in addition to the properties already assigned to these bodies, we must observe that they differ in density; that is to say, the same volume of each represents a different weight. Thus, for example, carbonic acid gas is much heavier

than atmospheric air, and if generated in a closed vessel filled with ordinary air, will displace it, though if left in contact for a short time, both will become mixed, in consequence of the principle which it is our object to explain. We must previously, however, allude to another very observable property common to all gases; not only do they manifest a tendency to mingle with each other when brought into actual contact; but if separated from each other by a membrane, such as a piece of bladder, the union still proceeds with great activity; if, for instance, we fill a small bladder with carbonic acid gas and place it in a large vessel containing atmospheric air, we shall in a short time be able to show that the carbonic acid gas has passed through the bladder and mixed with the atmospheric air: an action much accelerated by previously moistening the bladder. The relative rapidity with which gases of different density pass through membranes, however, varies considerably; thus the fumes of ammonia pass through a moistened bladder two and a half times more rapidly than sulphureted hydrogen, five and a half times more rapidly than carbonic acid gas, *one hundred and sixty times* as rapidly as carbonic oxyd. Let us pause to consider the vast import of this fact in relation to the animal economy. We are constantly receiving into our lungs fresh portions of atmospheric air, and expelling from these organs successive portions of moist, heated air, commixed with carbonic acid gas.

The blood, on the integrity of which our very existence depends, is only separated from the air we breathe by a membrane of the greatest tenuity; through this membrane, which is always moist and warm, and consequently in the most favorable condition for promoting the action above mentioned, the air and blood are perpetually reacting upon each other; provided the air be uncontaminated, the natural function of respiration proceeds naturally and pursues a healthy course; but if it contain any other gas which is capable of vitiating the blood, this fluid can not escape its influence, for we have every circumstance at hand to favor such influence with the utmost intensity. Now, it unfortunately happens that the gases which are most fatal in their operation on the blood are those which are most apt to be present in the atmosphere. All na-

ture is in a state of perpetual change; all organized forms are constantly undergoing decay—that is to say, resolving themselves into those binary compounds to which we have so frequently alluded; no animal matter can pass into a state of decay without evolving *ammonia* and *sulphureted hydrogen*, which pass through the walls of the membranous air-cells with the utmost rapidity, and, acting upon the iron in the blood globules, at once destroy their vitality. Beneficently, indeed, has nature endowed these gases with a repulsive and penetrating odor, which at once indicates their presence and causes us to avoid them. But this only happens when they are present in comparatively large quantities; where, as in densely populated towns, we have the air always contaminated with some of these deleterious products, even when not ordinarily appreciable by the senses, the very countenances of the inhabitants too plainly reveal the mischief going on. It must be remembered, too, that another element is present which dare not be left out of the account—the element of time. We may well imagine that a person, exposed to an accidental emission of poisonous air for a short time, who is again at liberty to inspire that which is perfectly pure, may be casually affected, and that the elastic and regenerating influences of vitality may speedily repair the mischief done. But, where foul air is always present and constantly inspired, its baneful action will soon be developed, even when the quantity is infinitesimally small. It is indeed by a proper estimate of the value of these phenomena alone that we can hope to rouse society to the importance of what are usually denominated sanitary operations; it is also by the proper application of the scientific facts of the case alone that we can expect efficiently to counteract the evils that will ever accompany the progressive march of civilization.

We have already alluded to the tendency of all gases to mix themselves when brought into immediate contact with each other; and to what has been premised, we may add that they do so independently of their specific gravity; for if a vessel—a bottle, for instance—be filled with the lightest gas we are acquainted with—hydrogen—and another with carbonic acid gas, which is much heavier, and these two vessels be connected by a narrow tube, in-

verting the first-named vessel over the other containing the heavier gas, the carbonic acid gas, notwithstanding its far greater weight, will intrude itself into the upper vessel. It is clear, then, that the *rationale* of this union can not be explained by reference to the gravity of the respective gases, nor yet by another hypothesis which has been suggested—that the one gas acts as a vacuum to the other; and we are indebted to Professor Graham for a most lucid and interesting research which satisfactorily proves the existence of a new force, which he has designated the “diffusion of gases;” it is this principle, too frequently disregarded, indeed barely recognized as operating on an extensive scale, that specially claims our attention in reference to the practical details of this paper.

Let us now briefly advert to the remarks already made upon the formation of certain binary compounds, in reference especially to their origin, and the order in which they most generally make their appearance—*whence* and *how* do they arise?

All organized forms are so constructed that, under the influence of vital actions, or, in simpler terms, during the presence of life, they are disposed to perform certain appropriate acts or duties; but action and reaction are always equal and opposite; during their activity, and in exactest proportion to the amount of exertion, they become exhausted; not merely so, the very continuity of their component parts is dissevered, and, instead of acting together as a whole, the minute particles or molecules of which they are composed stand aloof the one from another, and manifest a tendency to submit to other influences which, as an united whole, they were capable of resisting.

Take, for instance, the animal muscle; after a certain amount of exertion, it becomes almost paralyzed, perceptibly less rigid, and loses in bulk. This muscle is a most highly organized body, and comprises in its composition all the different elements we have had occasion to allude to. During its action, every effort renders it more unfit to act; after a time, rest is absolutely necessary to recruit its strength, and enable it to reacquire its capability to act; and for this reason, some portions of this muscle have disappeared, and what were before highly organized portions, have become indifferent to the vital force—have, in fact, stepped



out of the list of the living forms and become rejected from the organism as effete. This happens most frequently in a given order. First: the oxygen and hydrogen retire from service in the form of water; hence, on violent exertion, we observe the increase of perspiration, and, consentaneously with this, the respiratory function becomes disturbed, the breathing is laborious and much increased in frequency, pointing to another defalcation—the carbon is giving way, and departs from the body, united with oxygen, as carbonic acid gas; finally, the nitrogen escapes as ammonia, and the sulphur and phosphorus, in this case, as oxygen salts. But although these products are thus originated, and generally in the order above described, they do not remain so, but, almost universally, meeting with carbonaceous bodies which claim the oxygen, moisture and elevated temperature both being present, the oxygen, both of the water and the salts alluded to, combines with the carbon to form carbonic acid gas; whilst the now liberated or rather liberating hydrogen, in a nascent state, attaches itself to the sulphur and phosphorus, forming, in the one case, sulphureted, in the other phosphureted hydrogen. A vast variety of other cases might be instanced; the one taken has, however, been selected, as containing all the elements which come within the circle of operations alluded to. In all, however, the main result is analogous or identical; what was before an organ capable of performing functions, has stepped out of the category of organized forms, and become effete—in such a way, moreover, as to exert a highly detrimental influence on the organisms that remain intact; and thus:

The balance by which the minutest particles or molecules of all organized forms are kept together, is one of infinite delicacy, and disturbed by circumstances so minute that we have in many cases—nay, in most—no physical means of ascertaining their *presence*, much less of tracing their operations; and it is a fact established beyond all doubt that bodies in an actual state of molecular disintegration, or breaking up of constitution, in the presence of favorable conditions, (generally elevated temperature and moisture,) exhibit a tendency to originate the same changes in other bodies analogous to and in contact with them—sometimes directly, as in most

cases of what is called decomposition, sometimes by intermediate processes of great interest which are yet but imperfectly understood, and claim research. In the every-day occurrence of vaccination, the leavenlike—or, in scientific language, *diastatic*—body introduced, eventually produces results on the living organism differing in no wise from those which it might have induced in many hundred of similar instances, with such a precision, also, that in most cases the period of its manifesting disturbance in the living frame may be predicted to a day, and this not by the introduction of any new elements into the human system, for organic analysis eliminates nothing but those which have been so frequently mentioned, but by exciting molecular action in the living tissues and vital fluids identical with those which were originally efficient in producing the matter introduced, and which will assuredly produce a lymph endowed with power again to propagate the same disturbances through an infinite number of beings. A similar change doubtless takes place in the appalling affection—hydrophobia. A minute particle of diseased mucus inserted by the tooth of a rabid animal into the living body, may remain apparently latent for weeks or months—not really so, however, for analogy compels the belief that all this time it is undergoing insidious changes—until by progressive development the energies of vitality succumb, resulting, we might almost say, in inevitable death. And if such changes uniformly take place through complicated and circuitous operations, with how much more rapidity must we expect them to act when diastatic bodies are introduced immediately into the vital fluid or merely through the intervention of a thin moist membrane, which is known not only to be no protection at all, but rather to favor the imbibition of noxious matter. Never, then, be it forgotten that the presence of life implies death; that the progress of vital function necessarily indicates decay, with its never-failing concomitant, the production of substances obstructive to life and presenting themselves in radiating forms which would, but for wisely provided checks, extend their baneful influences over the whole surface of the globe. It is but a mere question of time. If a noxious gas be delivered into the air, it is no longer circumscribed; but by the law of

the diffusion of gases it will certainly obtrude its presence and commingle with the atmospheric air wherever this air is to be found, here leveling all ranks. If unwholesome air be generated in the back streets and alleys of our towns, the very same will intrude into the dwellings of the rich; if, by the putrifying of effete matter, typhus fever be established in the mews, it will certainly find its way into the square. But how vast a field does the application of these views now open out! The crowded assembly, the domestic dwelling, the texture of dress, the very conservation of daily food, all find a claim for notice; nay more, life, presupposing death in the inevitable operation of the principles alluded to, presses a still further responsibility. At a certain period of

human existence, progress ceases; no more renovation of the organism can be hoped for; to hold its own is all that we can expect for a short and useful pause; then comes the end—each day, each hour loses organism without replenishment, and looking forward to those who come to fill our fallen ranks, may we hope that by the application of the views we have endeavored to expound, those ranks will represent, not pusillanimity and weakness, but forms right stalwart and manly, though still imperfect representations of the works of Him who, at their creation, examined all, passed before all in grand review, and announced their adequacy to perform every predestinated function; for behold! *they were very good.*

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## BY-GONE MANNERS AND CUSTOMS.

WE are accustomed to descant upon the brief duration of human life; yet within the term of four-score years, to which the life of man is extended in recent times, in place of three-score and ten, as formerly, events unparalleled in number and magnitude may occur. Centuries, for example, have gone by in perfect stagnation, placed in competition with the stirring events which have passed over the head of the present octogenarian. The Registrar-General tells us, every tenth person in this country lives to be eighty, though half born die at twenty years old or under. From the peace with America, which declared its independence, to the present hour, what mighty interests in the destiny of nations as well as individuals have come upon the scene and passed away! Thus, civilization and popular freedom, the arts and sciences, and social amenity, have made great strides; newly discovered lands have been populated, and man has become more exalted in the scale of being, both by increase of numbers and the influence of power acquired

by augmented intelligence. The present time may afford much of mental production which pleases, but little which excites astonishment. Yet, even this has not been destitute of that genius, the brilliancy of whose conversations, if less regarded because less exciting, has not failed to hold its place among those who are qualified to estimate its pretensions. We have much which amuses and little that elevates; while science—serene, severe, solitary, inaccessible to the many—reposes peacefully under the patient law of investigation, amidst discoveries of the greatest importance to mankind. Many more of the present than the past stand upon the lower steps of its sublime temple, executors of that in the origin of which they had no participation, directing themselves to the useful alone.

Some will be found who, lighting upon abstract truths, believe, from inexperience, that their realization is practicable if due efforts are made for the purpose. They do not see that the want of this realization is the cause of all the evil in the

world—a thing to be aimed at by honest means, but never to be more than partially realized. They do not see the opponent forces—the unions of creed, custom, interest, prejudice, and power, that are the intervening obstacles, to say nothing of natural bias. Thus it was with the sect called “Chartists,” who, more earnest for progress than instructed in social history, could see no difference between the principle of political good in the mind and its practical realization in society.

A little time ago people did not give themselves trouble about things to which the lack of education had afforded them no clue. They would set fire to Newgate, or chalk up “No Philosophers” on the walls of their houses, not knowing what it meant; or burn the dwellings of men of science in the name of “Church and King,” when just before they had been hoarse with shouting “Wilkes and Liberty.” The masses then were comparatively rude; they were as a ship without a helm, yawing widely and compassless along. Any poetical pilot would do who chanced to suit their humor. Education, greatly extended to what it was in those days, when it was denounced by men in high places, and discouraged by many of the clergy, in place, as now, of having their support, has taught a different lesson to the people. What if it be not as far extended as is desirable, still its ameliorating effect is evident. The houses of scientific men are not fired, religious opinion is no longer constrained, and rational freedom is better enjoyed by all classes than in any other country in the world. The more immediate object of this paper is a brief delineation of some of the more striking changes within the compass of a life taken in a desultory way, as they occur to the memory.

In England, fashion ever bears sovereign sway. The changes here have been in every way of a most extraordinary character, successive generations not being servile copyists of their predecessors, but, on the contrary, each seeming to delight in its own peculiarities, and in by-gone times tainted with political party insignia. Thus, if the blue and buff which marked the Whig partisans led by Charles Fox, and the beaux who fluttered around his beautiful advocate, the Duchess of Devonshire—the Windsor uniform of blue and scarlet distinguished the friends of

Pitt, but the Lady Graces were wanting there.

The French Revolution, so accurately foreseen by Lord Chesterfield before the event, which did not take place until many years after his decease, was a prediction equally remarkable as affecting the Pope, whom his lordship included in the same category. Napoleon I. broke the spell of the influence of God’s viceregent, as the revolution had done that of the regality—two great events in the time of existing men. The French Revolution, too, produced a vast alteration in manners, and changed the form and pressure of fashion altogether. This change was not so visible at first among the aristocracy, which kept to its own limited circle, as it was among those who made less pretensions to exclusiveness. With these last the effects of a more expanded mental development soon became visible through the crude efforts made to reconcile existing things a little more with the dictates of reason. At the period when the French Revolution showed its earlier symptoms, and before the vain opposition to it, and the violence that opposition caused, by the European potentates intermeddling, the popular sense had shown a desire for the abrogation of the law which made usage its equivalent without regard to circumstances. To this direction the public mind had been almost intuitively led through the continued disagreement between profession and action, by persons in authority under every European government. Thus, while sovereigns were anathematizing France for commencing her revolution, they were plundering and dividing Poland, of which they had feloniously robbed a brother sovereign. But we must confine ourselves to our own country, or the field will become too extended. The politeness and urbanity which then prevailed have been censured as too artificial; but the habits of a century in good society had made them second nature. Englishmen have at all times been considered too stiff and constrained in their bearing; but at the period to which allusion is now made, the manners of the higher ranks were far more easy and polished than those of the middle classes, who have since approximated more towards them. These, it is true, were conventional, and there was a want of taste in manners—after present

ideas, however scrupulously observed. These too were not rigidly in accordance with a law which is no changeling, let fashions alter as they may. Such dissonances, however, were not relative so much to the carriage between man and man as to the appliances of dress, equipage, and cumbersome court formalities. Invention was racked in order to assimilate body and mind to an agreement in some inconsistent deformity. The shape of a coat was often the completion of an obliquitous fancy, and men of birth and fortune played fantastical tricks in dress and equipage, while women now make laughing-stocks of them. Commercial wealth could not then compete with the fortune and influence of the owner of broad acres, and the opinions of inferiors were of no moment. The man of consequence was distinguished by his garb from the "nobodies," and not, as at present, by his dialect and bearing. A bilious nabob, a rich merchant, or a parvenu of long purse, only appeared now and then on the public stage to compete with noble exclusiveness. To mingle occasionally with the public was necessary to people of rank, in order to attract their notice, or rather that incense, which to this day is paid to the great man of money in the idea of the small. Revelry was then more rife, and luxury more prodigal and sensual.

Manners and fashions were of the French school, as they had been for a long time before, to a degree which the celebrated Lord Chesterfield, before quoted, highly censured. After the American war was over, the approximation to the French was still greater than before. French princes came over to St. James's, and the upper ranks in England were charmed with the *outré* taste and the refined and unlimited dissipation which distinguished the court of France. The debauched Count d'Artois, afterward Charles X., the greatest profligate in France, among his other accomplishments, learned to dance on the tight-rope. Money was scarce, and the nation impoverished by the extravagances of preceding reigns, but economy was inadmissible. Marie Antoinette, who had married at fourteen years of age, joined Count d'Artois in his extravagances, and lavished large sums among her favorites. At one time the streets would appear filled with waving plumes of the ostrich-feathers with which she decorated her train of car-

riages and attendants; at another, she feasted the more thoughtless and reckless of the courtiers. The king remonstrated in vain. Taxation almost insupportable, and a treasury without a sous, under a course of heartless prodigality, hurried on the terrible event. The courtiers danced and feasted, and rioted over the crust of a volcano that burned fiercely below them, soon destined to sink in beneath their feet, and annihilate sovereign and throne alike, amidst the intensity of its glowing fires.

The court took no heed to those signs of the times which made many thousands sleepless; they were lost upon the doomed Bourbon race—lost as the voice of wail that was heard denouncing woe to old Jerusalem. Thus, it was no sudden convulsion that shook the ancient diadem of France from off the regal brow. The quakings of the earth beneath her palaces, and the rumblings of pent-up fires, were timely heard by others without, but heard in vain within her magnificent palaces.

A singular puerility, or rather mental imbecility, was mingled with every thing. Even vice lost all manliness, and fell into effeminacy; protracted action without an object had exhausted all the energy of the ruling power. Restoratives were vain; even satiety was weary of itself, until the rougher profligacy of the lower orders made that of the higher a matter of commiseration.

The manner of address between man and man underwent little change, because that is a work of time. It continued civil and polite. The hat was always in the hand in addressing a lady by every Frenchman. Respect for the *beau sexe* was kept up even the amid the horrors of the Revolution. At Fontenoy, some years previously, the English Guards addressed the French: "Gentlemen of the French Guards, give us your fire!" to which the French Guards replied: "We will not fire first; fire you first!" The same manners remained in Paris even down to the time of the sanguinary Robespierre. During the "Reign of Terror," as it was called, a cart came daily to the prisons to take to the scaffold the condemned of the day preceding. A gentleman was on the steps to take his place, when he perceived a lady was close behind him; she was, like himself, bound on her last melancholy journey. The mo-



ment he perceived how he was placed, he begged to descend, took off his hat, apologized for his precipitancy in attempting to lead the way, and then followed her to the guillotine. This was not affectation, but the habit of politeness common at that time. We remember seeing it among the lowest of the people, when we were there with the allied armies after Waterloo. We fancied we saw less of it twelve or thirteen years afterward. The manners of a true gentleman are innate; and those who try to imitate that to which they are unaccustomed are certain to fail. We take it, there is a still greater falling off in France with those old manners in the present day. The late Duke of York, one of this old school, used to take his hat off if he addressed a woman in the humblest rank of life.

The profligacy among the upper ranks at the close of the last century did not alter the habit of polite intercourse; for even the orgies of Count d'Artois were marked by perfect court manners. These, however, could not affect the course of events. The conduct of this Prince, in endeavoring to excite the Germans to enter France, is a matter of history. It mainly contributed to hurry his brother to the scaffold. The measure, it must be admitted, was an inexcusable treason against France, and he should have expiated the offense, in place of his mild but weak-minded relative, who, it was said, scarcely connived at the treason of d'Artois against his country.

Thus fell together the monarch and the court in the midst of a frightful desolation, wholly denuded of the grandeur that had accompanied the decadence of other empires and dynasties; but the people survived, worn out with the iteration of words and the disregard of things.

The middle class in England had imitated French modes by copying the higher and more fashionable people of their own country. They had not the same opportunity of more directly imitating French vices or virtues. They copied the more fashionable of their own nation, because of those was the party they were anxious to rival or rise to a level with in external appearances.

The destruction of the Bastille—that prison which fixed such a foul stain on the Bourbon race—was witnessed with no small apprehensions by the courtiers here, because it was an omen of more

fearful events to come in the downfall of the system which claimed to rule by divine right. It was to no purpose that a wicked war, declared by Louis XVI. against England, without one shadow of a cause, and in aid of her revolted colonies, was alleged as a ground for our non-interference. The dynasty of Louis was to be supported at any cost, and the attempt against the integrity of the British empire was forgiven, for the sake of supporting a principle that is now exploded. This is a matter of history. Lord Hood proclaimed Louis XVII. at Toulon, before he was driven off. The war being that of kings against the progress of freedom, Louis XVI. and America were forgotten. Under such a state of things, manners and fashions could not remain unaffected. Cuts and patterns from Paris began at length to be suspected of Jacobinism. The "notions" of the French court, as the Americans would phrase it, had perished with it. In England the titled and the wealthy grew reserved, seldom appearing as they had done before, being in continual dread of the cry of "Liberty and Equality." French manners suffered for Republican vices. Politeness withered into cold ceremony, where a previous friendship had existed, wherever a taint of liberal principles was suspected. Party feeling crushed candor, and men became suspicious of one another to a degree incredible at the present time.

It must not be denied that some changes effected in the manners of the higher ranks were needful. Vice was not so unblushingly exhibited; dissipation seemed to pause for a moment, as if staggered at the dreadful doom of those whose ill courses, prodigality, and oppression of the people of France, had been too obvious. It seemed as if an awful example of retributive justice had fallen upon a neighbor's household. Men paraded their vices, and incidents of the most equivocal nature passed without reprobation. What a triumph in this respect have the reigns of William IV. and Victoria proved over those of the three first Georges! One prominent vice was gaming. In the metropolis houses abounded, not confined to play alone, where foolish persons staked their money without the implication of fraud, except by ill-fortune, but houses of a double character. Women were openly employed to entrap the un-

wary, and the blandishments of the harlot were added to the temptation of the game. Some of these houses, or other houses differing little from them in character, were more select, and devoted to intrigue as well as play. The grades on a descending scale included the resort of thieves, common and heroic, or, in the latter case, what were of old called highwaymen—a race not extinct in the present century; for to combat them, the coach-guards prepared their fire-arms on approaching within forty miles of London. From one of those of the progeny of Mac-heath we had ourselves a narrow escape once on crossing Hounslow Heath.

Fashionable people opened their houses for play, and some not destitute of rank or title shared in the spoil of those they invited to their routes to be pillaged. These might be deemed exceptions in the class, but such cases were notorious, even among people of title. Few tables were to be found in private houses, where, though the play was fair, the individual of small means was induced to stake more than his fortune would afford. The Prince of Wales, behind in nothing that was fashionable or dissipated, set up a faro-table at Carlton House, where too many honored with princely smiles paid dearly for them—a thousand pounds having been lost there evening after evening by individuals far from possessing wealth to justify it, and by men not professed gamblers. General Arabin, who had partaken in some of the entertainments of the heir-apparent, spoke to us of them in his after-life in very depreciating language.

At the club-houses play was high. Wilberforce tells how that profligate, George Selwyn, who passed for “a wit among lords,” attempted to make him a victim at Brooks’s.

The faro-table, once so common, is now known to few in regard to its mode of usage. The game was called E O. The table was circular, and had a wheel in the center, which turned round horizontally. It contained forty cells near the outer circumference, marked alternately E and O. The banker or keeper of the game played against the company. He first set the wheel in motion, and then threw an ivory ball round the table in such a manner, that upon its motion ceasing it must fall into one of the cells marked E or O. If the ball lodged in E, the banker took all the money laid upon that letter,

and paid all in O to the winner. As the sums staked might be even, and the bank neither win nor lose anything, two of the holes or cells were called “barred holes”—one E, the other O. If the ball fell into one of those, the banker received the money so staked, and paid none to the other letter. At length, competition springing up by the opening of other houses, the sum was at last reduced to half the barred hole. These tables were declared unlawful by act of Parliament, although not more so than other games of chance, as *roulette* or *rouge et noir*. Thus capricious is our legislation, which strains at gnats and swallows camels. E O tables, or roulette, are neither more games of chance, nor more ruinous, than horse-racing, which now exists solely for gambling purposes—the improvement of our breed of horses, for which racing was originally established, having no concern in the matter.

It was to the credit of those who used the E O tables secretly, that the proverb of “honor among thieves” was rigidly observed. Men who lost or won never betrayed the keepers of the tables by information to evade payment, while the modern blackleg will take the money he wins, but if he loses, lay informations.

Immorality was open, and met comparatively little censure in those days. The Prince of Wales, it is true, was cut by the Jockey Club, and the blacklegs of the turf cried out against him upon a point in which his Royal Highness was thought not to have justified himself. Some of the public entertainments, as given in our youth, would startle the present public from its propriety, while they were in themselves of a very inane character. Public and private masquerades were then favorite entertainments, and supported with a license which would put modern manners to the blush. They concealed matrimonial intrigues, and corrupted the morals by an indiscriminate mixture with the vicious. The Hanoversquare Rooms, the Pantheon, in Oxford street, and the King’s Theater, were the principal resorts of fashion upon these occasions. They were attended by the Prince of Wales, the Dukes of York and Clarence, and others of the princes, together with a crowd of the noble-born of both sexes, demireps of fashion, and persons of dubious fame. At one of those orgies in the Pantheon fourteen thousand

lamps were lit up, and more than fifteen hundred persons were present, of whom eleven hundred sat down to supper.

Just before the old state of things in Europe struggled with the new, which last, it must be confessed, was a vast improvement, the entertainments given were checkered with political impersonations. Here strutted a mask with a double face, its shoulders enveloped in a cloak, clearly a satirical allusion to the back stairs of the royal residence. On the back of the cloak a ladder was represented, with the words, "secret influence," the person so masked carrying, in addition, a dark-lantern. Another figure was observed followed by a squire, having a label in front, with the words "public ruin," both masks holding appropriate dialogues. Bishops and courtiers were continually personated, both at public and private masquerades, by allusions not to be mistaken. Hence, the taste of that period may be characterized. At one entertainment, the Prince of Wales, his brothers, and the Duke of Queensberry, attended. The last may be remembered by many persons in their younger days, when turned off four-score, sitting in the verandah of his drawing-room in Piccadilly, opposite the Green Park, at such an entertainment, when many distinguished personages were present, with others scarcely less conspicuous among the fashionables of that time. The names of the frail among the fair sex were given at full length in the newspapers most in esteem, as records of similar scenes. On one occasion, at which Lord Cholmondeley presided, the Duke of Orleans was present, and a great number of the nobility and "ladies of high rank and virtue," together with many of the same sex, as frail as fair, friends of the princes. Others of the same description, less honored, attended with their paramours. An expensive supper was served up, at which sixteen hundred sat down. Day had advanced a considerable way before the company departed.

Upon another occasion, at the Pantheon, the Prince of Wales danced cotillions, when he changed his dress of white, blue, and silver, several times, wearing a King Harry hat and feather, with a rich diamond buckle.

At some similar entertainments, remarkable for gross feasting and every kind of luxury, but without wit or vivacity, attempts were made at amusement

by the introduction of the most out-of-the-way diversions. What would now be thought of hiring Italian harlequins to promote laughter, and among other exhibitions for the same end, hanging up unlucky geese by the feet in order to dislocate their necks, amid the antics of those mummers! The character of such exhibitions speaks the feeble mental resources of the fashionable less than four-score years ago, and the great intellectual superiority of the present time.

It is not to be wondered at, that men of intellect sought for entertainment in clubs of a very limited number of members, and avoided a participation in scenes which had not a single reservation to place in the balance against such witless, though fashionable, immoralities. The description of such scenes were given by the papers of that day with much *naïveté*, and apparent unconsciousness of any thing outrageous in morals, or incorrect in manner. A sporting paper of the usual low character in the present day, would describe a ruffianly prize-fight with a similar unconsciousness of its vulgarity. At such or such an entertainment every luxury was displayed, and the company "was disencumbered from the restraints of common life." Another statement says: "Here all was turbulence and dissipation, there all flattery and intrigue." Such were the loose manners, and such the description of scenes of fashionable life, in the much-vaunted moral era of George III. The modest females who stand in the stalls of the present Pantheon Bazaar, are little conscious of the scene of their commercial calling being that of vicious intrigues, heartless follies, and luxurious revelings within the life of existing men. Can a greater insult be imagined to the noble dames of the court of Queen Victoria, than to imagine them congregated in such a society, although princes were the patrons of such scenes! It would scarcely be credited now, that such servile and adulatory worship should have been paid to men of any rank, much less lead the noble dames of England into a self-degradation of which those of the present day would resent being supposed capable. The present time shows nothing as exceptionable as this in any rank or station.

But for bad taste in most things, the foregoing time was equally conspicuous. Costliness was found without regard to elegance, and frivolity ruled the

hour. Fashion exhausted seemed to have come back to second childhood for its regulations and adornments. Ranelagh and Vauxhall were then in their glory; but the first closed about the commencement of the present century, and the second lost all its former attractions before a score of years of the same era had passed away.

Ranelagh, not long before that event, was the scene of one of the most splendid entertainments ever given in this country by a foreigner. The French ambassador gave an entertainment there to Queen Charlotte and the Princesses, in which great cost was incurred for trifles. It was very characteristic of French taste in such displays. A host of opera-girls were dressed out as shepherds and shepherdesses, with cornucopias in their hands, singing pastoral ditties to a lady who looked like any thing but the goddess so honored. Sprawling angels, genii, and allegorical transparencies, eked out the show of heathen deities and London opera-dancers; but, then, who could question the taste of the age of *Le Grand Monarque*?

The Spanish ambassador, not to be outdone, transformed all Ranelagh into a Spanish camp filled with tents, and at the entrance of every tent a page in full uniform. The celebrated gallery was converted into a temple of Flora, and the orchestra into a pavilion, lined with white satin, having a heavy gold fringe. Within the pavilion a table of eighteen covers was laid for the Queen and royal family. In front of the pavilion was a stage for the Spanish dancers, with their castanets. There were lotteries open, with trinkets for prizes, such as jewelry and watches. Women waiters attended, habited as shepherdesses, with garlands of flowers; and they, not very consistently, handed round tea and coffee, according to the modern notion of Arcadian times. One hundred *valets de chambre*, in scarlet, the seams of their coats decorated with gold lace, and lined with blue, and also waistcoats of blue and gold, attended upon the company. Upon these valets in scarlet, a hundred footmen, in blue and silver coats and waistcoats, attended. Fireworks, pastorellas, dryads, and nymphs, attended, on all sides, to stimulate Elysium, amid the murky atmosphere of London. Between three and four in the morning, splendid suppers were served up, that

at the royal table on a service of pure gold—the table-cloth alone cost a hundred guineas. An ode of more than laureate doggerel was sung, and the expensive and tasteless entertainment concluded.

The scene of these revels, the once-renowned Ranelagh, had in the center a rotunda one hundred and fifty feet in diameter, and neither devoid of elegance nor novelty. It held numerous boxes for the company. There was a promenade round the circular orchestra in the center. Tea, coffee, and refreshments were served during the concerts. Public breakfasts were often given there; and masquerades neither remarkable for good taste nor morality.

No expenses were spared in purchasing whatever could be acquired for the entertainment. At the Knights' Gala, one of the latest given, two thousand five hundred persons of the first class shared the hospitality of the house. A guinea the pound was paid for cherries, and fourteen shillings a quart for green-peas. The entertainment cost seven thousand pounds. Court dresses were worn upon the occasion.

We are thus more minute regarding Ranelagh since its sun has so long set, and its sweet singers are among the dusty dead. Even its site is so changed, that it is difficult to imagine the spot, even in the present century, to have been one of the gayest resorts of fashionable life.

It was before the extinction of Ranelagh, some years since, that changes began to take place in public amusements. The French Revolution was the alleged cause, though Sunday evening riots, and card-parties at home, existed as before. The more exclusive began to talk of the people as the *canaille*, and to affect a dread of leveling principles; and that, too, while the mob was shouting in obedience to its superiors almost any thing put into its mouth. The highest classes in those days were not remarkable for gratitude. The upper orders, that had copied so many of the vices of the French court, vices which accelerated the Revolution, became alarmed lest the people of England should in their turn take up revolutionary ideas. They attributed the cause to a decrease in popular ignorance, and to the writings of the French philosophers. They paid no regard to the means by which, in the present day,



men arrived at just conclusions, because their sole rule was policy and not justice, prejudice and not reason. They dreaded whatever militated against a cherished fallacy, or a remote interest, while a want of moral courage was a remarkable trait in their conduct.

After the tragic scenes in France, and the atheistical avowals of some of the leaders in them, the upper orders here, ever in extremes, and lately so lax in morals, suddenly pretended an extraordinary zeal for religion. From a great laxity of manners and morals they went, in profession at least, to the opposite extreme. The pulpit resounded with anathemas against France; and the most dissolute princes in Europe became objects of their sympathy — *pontifex, rex, lex*, was the cry. The dissenters were pronounced to be tainted with Jacobinism, and Tom Paine was hung in effigy. Those among the nobility and gentry who took a reasonable view of things, who deduced natural effects from obvious causes, were regarded with aversion, and their loyalty hinted away. Those who grieved over the excesses of the Revolutionists, but would not raise altars in their hearts to despotic principles, were slandered. They who had not long before welcomed the dissipated Bourbon princes here, and once shared in their excesses, became on a sudden seized with regard for the morality they had set at naught, prompted by selfish apprehensions alone. The fashions, senseless as they are in relation to dress and equipage, remained in the old French taste, because fashion is ever destitute of principle.

In those points where it would have been advantageous to observe the proverb, *fas est et ab hoste doceri*, on the other hand, the government disdained to imitate the French. The cumbersome and brutal discipline of Frederick of Prussia prevailed as the model of the English army. The idea of copying any improvement which the French introduced into their military system was scouted. Even the pipe-clay, the powder, and long queue, which the French abandoned, were deemed orthodox; and the repeated victories of the French, raw as were their levies, over our troops under the Duke of York, furnished no clue to the real cause. But to return to the more immediate subject,

that of civil life, and particularly of the habits and fashions of the day.

The apprehension of French principles affected a beneficial change in the conduct and bearing of no inconsiderable proportion of the higher classes, whom the exhortations of the pulpit would never otherwise have moved. But even here, in place of referring to the past with reprobation, the clergy employed themselves too frequently only in anathematizing the French, and decrying liberty and equality. The primrose language of dalliance, with genteel views, was only exchanged for political denunciation of the French rebels and Jacobins. In this way some emendation of the previous profligacy in manner was affected, at least more external decorum was observed.

It is the fashion to censure the present time for its licentiousness, and a numerous array of faults have been laid to its account. The worst individual in the existing state of society would feel repugnance to outrage public decency, or disgrace character, as were those matters too common to be noticed among things much out of the way. The days of the Barrymores, or Hellgate, and Cripple-gate, with their sister Billingsgate, are long past. Gamblers and knaves were permitted to bully men of reputation and honor, and provoke them to dueling. Fighting Fitzgerald, who came at last to the gallows, would not now be permitted to enter the society of gentlemen, intruding where he was detested and feared. Major Baggs and Tiger Roche would not have run a similar course to that which made them both feared and despised. Public opinion itself would have set them down in the present day. Bishops do not put on plain clothes now to ogle opera-dancers; nor imagine a glass door between themselves and the orgies of princes can justify a profanation of the episcopal garb.

In the present day the higher classes have occupied their places with that kind of feeling and conduct which commands much more respect. Even monarchs have been demonarchized in those countries most advanced in civilization and freedom. They are in future to rule solely for their subjects, and by their free choice, in place of their own indisputable right, accountable for their actions to God alone. How much more powerful such a principle ren-

ders a throne, the example of England abundantly proves. She owes to it her extended population, her unflagging energy, her vast resources, and the fixedness of her free principles.

The manner and address of the mass of the people are much more advanced, and a kinder intercourse and more genial spirit prevail in every class, and more developed as education becomes extended. There was nothing like this before in the period to which the present observations primarily refer, and hence the increase of the power and wealth of the country. Our rapid improvement has kept pace with the enlargement of the bounds of civil liberty, of trade, and of opinion.

One of the things most dependent upon manners, always capricious and fluctuating, is prominently displayed in dress, though intrinsically of little note. The present aspect of the crowded streets of the metropolis, could each passenger have at his side an individual, male or female, in the dress prevalent at the beginning of the century, or at the time of the French Revolution, what a strange contrast would it present. That of the female world, in particular, luxuriating in tasteless and violent extremes. With the *beau sexe*, the example of France was always held in high estimation. Before the revolutionary war, a doll was sent over from Paris monthly, to be a sort of text by which the fashion in England was to be regulated. All Europe, except Spain, bowed to the same authority. In Spain, until the war for the restoration of Ferdinand VII., the handsome and becoming dress peculiar to the nation prevailed, with slight variations, from the Pyrenees to Gibraltar, among the better classes. Subsequently the fashions of France were seen here and there creeping in, particularly in the capital, setting at defiance national antipathies. In England the French Revolution interrupted all intercourse. In former wars the bitterness of national hostilities was set at naught by fashion, for whether smuggled over, or sent by a circuitous route, the little model, in wood or wax, was permitted to come in. In Mr. Pitt's idea it would seem as if he feared the little image would import with it the principles of the Revolution; and that he declared even fashions from France to be likely to import with them Jacobinical sentiments. Flowers and fashions were dangerous to the British Constitu-

tion if imported in Gallic forms, or crimped *à la Robespierre*, or Bonaparte, for both were declared alike in character, and equally inimical to human and divine favor. No matter, Pitt was inexorable. Jacobinical "notions" must be kept out, and non-intercourse was to be rigidly kept up. Not a columbine nor a doll was to be tolerated, until the Bourbon was restored to the plenitude of absolutism. Even Peruvian bark was declared contraband, lest fever might become too harmless in the Marais, and the villainous dogs of Republicans not die fast enough. Such were the humanities of that day; the present need not dread the comparison. In such times the brightest eyes of the most dazzling British beauty had no weight with Pitt. If the doll had worn a tri-colored dress, there might have been ground for a ministerial objection; or, had the little image been able to support in its model dress a hundred yards of Jacobinical silk. But it would have been a partial thing to admit aught in the shape of costume, though in former wars never refused admission. Thus, too, it was enacted, in order to prevent intelligence of what was going forward in England from reaching the French Government, that any Englishman transmitting or conveying a newspaper to France, should be liable to a penalty of five hundred pounds.\* Such was the ignorance of the Government of that time of the real state of the mode of obtaining intelligence. Both on the French and English side of the Channel, smugglers conveyed the newspapers of both countries regularly to each other; and somewhat later the *Times* paper kept a small cutter (so it was reported) to obtain intelligence through the same channel. Napoleon I. told the world, in St. Helena, that he winked at the toleration of the transmission of intelligence by the same means. It was practiced, *sub rosa*, on both sides; but the ministry was all ignorance upon the subject. The interdiction of shapes or patterns for bodices or skirts, or patterns of silks and satins, caps and flounces, cast a gloom over our fair islanders. The more binding the prohibition, the greater anxiety was displayed to evade it, a propensity which persons, who may be supposed captious, attribute to the fair sex. It is true they

\* See the act for the regulation of newspapers toward the close of the century.

were patriotic enough to declare they did not care about French textures, except a little crambrie now and then. It was the mode, the superior cut, the supreme taste, in which we were deficient, that they so much valued. Fingers accustomed to delineate the line of beauty in Parisian dresses, were now void of direction, and floundered as much in their way as our statesmen themselves in a calling in which they appeared to be sometimes as much at fault as our ladies were of the mode without their manikin.

The attempt to smuggle in a doll, *via* Holland, it was thought might evade the antipathy of the ruling powers against the *sans culottes*, provided it was kept clear of Dutch latitude in the passage. The Duke of York having been driven out of the Low Countries into Holland, swimming a river to escape the consequence of his bad generalship, Holland fell before the French, and the aspirations of our fair countrywomen were as much disappointed as those of Mr. Pitt and his princely generalissimo. Thus excluded from the capital of taste, wig, cane, hoop, cushion, including hair-powder, and all the paraphernalia of the toilette, ran wild in the usage. Queen Charlotte, not remarkable either for taste or beauty, retained the old defunct state of things at court by her example; Lady Mount Edgumbe, seated near her Majesty, the wags said, as a foil, being the more ordinary

of the two in person. Thus the court proceeded without feeling the destitution experienced beyond its verge, loyalty in buckles and high-heeled shoes continuing to flourish after the old Bourbon pattern. Thus, too, the emigrants who came over here in shoals, were consoled by greeting traces of the costume of the Maintenons, Pompadours, and Barrys, here, which had disappeared at home. Hoop and farthingale, bag-wig and sword, pigtail and powder, were preserved here, and viewed, as precious relics are viewed by the Holy Apostolic Church, until the better taste of George IV. banished or moderated their extravagance of shape and texture.

The French, after the Revolution, purified and amended their costume, and the court of Napoleon was attired in the Grecian taste. The peace of Amiens placed the Gallic example not only in the ascendant, but within reach; and a few genial hearts were obtained toward the restoration of that which Jacobinism and Robespierre, Pitt and George III. Regent, or his successors, could not do more than moderate; for it is beyond the reach of thrones or subjects to dictate in its regard. One of the Bourbons attempted to change the name of Havre to Port Louis in vain. Fashion, in its whimsical phases, will neither be bounded nor enchained by authority. To compare small things with great, it is like the Press, a chartered libertine.

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From the London Eclectic.

## MRS. BROWNING'S LAST POEMS.\*

ALTHOUGH we so recently devoted several pages to a review of the works of the greatest poet of womanhood, we can not allow this volume to appear and to pass without some words; painful words they must be, since how gratefulsoever we may be for so much received from this pen, we

now shall receive no more: these are the last, and they are like flowers on a grave. We are very grateful to receive poems from the author's own and deeper heart, enthusiast as she was for Italy. We never cared so much for her lyrics of Italian freedom; the tones which will be forever prized are those deep notes, rich and thrilling as if her heart were itself a cathedral, and all the tenderest and most

\* *Last Poems.* By ELIZABETH BARRETT BROWNING. Chapman & Hall.

sorrowful experiences celebrating sacrament there beneath the flow of its rich music. When years have made her more distant to her critics, some remarks may be offered upon some of the mental phenomena exhibited in her poems. Sometimes it seems to us that, had she been a strong and healthful, instead of what she was—a weak and suffering woman—her genius could never have borne such rich and refreshing fruit; nay, it might be possible to mark her progress in health and strength by the inverse value of her verse. In her, eminently, the sweetness of the strain resulted from the tightening of the chords. In one of the most remarkable of all her poems—one contained in this volume—she expresses in most memorable words the faith, that the man suffers in the making the poet. Well known as we believe these lines are, we can not forbear their quotation, because they seem to reveal so much of the lamented writer's sense of the personal history involved in the author.

"What was he doing, the great god Pan,  
Down in the reeds by the river?  
Spreading ruin and scattering ban,  
Splashing and paddling with hoofs of a goat,  
And breaking the golden lilies afloat  
With the dragon-fly on the river.

"He tore out a reed, the great god Pan,  
From the deep, cool bed of the river:  
The limpid water turbidly ran,  
And the broken lilies a-dying lay,  
And the dragon-fly had fled away,  
Ere he brought it out of the river.

"High on the shore sate the great god Pan,  
While turbidly flowed the river;  
And hacked and hewed as a great god can,  
With his hard bleak steel at the patient reed,  
Till there was not a sign of a leaf, indeed,  
To prove it fresh from the river.

"He cut it short, did the great god Pan,  
(How tall it stood in the river,)  
Then drew the pith, like the heart of a man,  
Steadily from the outside ring,  
And notched the poor, dry, empty thing  
In holes, as he sate by the river.

"‘This is the way,’ laughed the great god Pan,  
(Laughed while he sate by the river,)  
‘The only way, since gods began  
To make sweet music, they could succeed.’  
Then, dropping his mouth to a hole in the  
reed,  
He blew in power by the river.

"Sweet, sweet, sweet, O Pan!  
Piercing sweet by the river!

*Blinding sweet, O great god Pan!*  
The sun on the hill forgot to die,  
And the lilies revived, and the dragon-fly  
Came back to dream on the river.

"Yet half a beast is the great god Pan,  
To laugh as he sits by the river,  
Making a poet out of a man:  
The true god sighs for the cost and pain—  
For the reed which grows nevermore again  
As a reed with the reeds in the river."

This is one of the most perfect of Mrs. Browning's poems, but its doctrine is not always true. Nor is it necessarily true. True, the pith of the poem is the heart of the poet; true, the poet made out of the man, frequently becomes a sadly self-conscious and spoilt creature; yet we believe this will only be the case with inferior writers who have not much pith to spare. It was not especially the case with Mrs. Browning. If her verse and inspiration ever deteriorated, we trace the deterioration rather to what the world and knowledge of the world have given to her, than to what the exercise and utterance of her imagination have taken from her. The thought is wonderfully expressed; but we hope we may take it as rather representative of a mood of mind in its beloved author, than as the expression of the faith that all those fine natures whose music has enchanted us, became wasted, and spoilt, and impaired in the efforts they made to give freedom to their spiritual being. We even think that in such work the spirit loses its unhealthy self-consciousness rather than gains. Foremost among our sacred poets stands this writer, and there is one poem in this volume equal to any thing we have received from her in this line. A lengthy poem, *De Profundis*, may take its place with *The Sleep*. It is a liturgic strain, of great and painful beauty. It reminds us of those sacred measures which she poured forth from the sick-room in London, where, many years since, to the eyes of her friends, she seemed to lie dying. We must believe it belongs historically to those days before she was either wife or mother, when she was smitten down by pain, languor, and illness, and threatening death, and bereavement in the unexpected departure of the most beloved friends. It is *De Profundis*, out of the depths indeed. It is like one of those rich Mozart Masses; a pained and agonized spirit, respiring on the keys of the cloistered organ, and from



the largeness of the overwhelming grief, to the lesser sharpness of the vexation and the fret, expending its passion, and crying and sighing itself to sleep, upon the spear-pierced heart of the Redeemer. Nothing else can be conceived than that the writing of these words must have been an ineffable refreshment to her. They are of those words which quite disarm all power of criticism by the reverence they inspire for the writer. There come to all men, it is to be hoped, moments when a tortured, and wretched, and wretched being cries aloud with Elijah: "It is enough; Lord, let me die now." But we do not die, and out of such wretchedness the spirit learns to find its way to its true center and rest. In such moments the brightness and sweetness of nature do not comfort; they even add to the intensity of the misery. Nature helps nature's world; nature ministers to nature's heart; but to such depths as a soul's despondency and despair nature's sunlight and songs can not descend. We are afraid to quote from this psalm of life; we dare not to quote the whole, and we fear to injure the sublime and hallowed effect of the whole. Here is the opening grief:

"The face which, duly as the sun,  
Rose up for me with life begun,  
To mark all bright hours of the day  
With hourly love, is dimmed away—  
And yet my days go on, go on.

"The tongue, which, like a stream, could run  
Smooth music from the roughest stone,  
And every morning with 'Good day'  
Make each day good, is hushed away—  
And yet my days go on, go on.

"The heart which, like a staff, was one  
For mine to lean and rest upon,  
The strongest on the longest day  
With steadfast love, is caught away—  
And yet my days go on, go on.

"The world goes whispering to its own,  
'This anguish pierces to the bone';  
And tender friends go sighing round,  
'What love can ever cure this wound?'  
My days go on, my days go on.

"Breath freezes on my lips to moan:  
As one alone, once not alone,  
I sit and knock at Nature's door,  
Heart-bare, heart-hungry, very poor,  
Whose desolated days go on.

"I knock and cry—Undone, undone!  
Is there no help, no comfort—none?  
No gleaning in the wide wheat-plains  
Where others drive their loaded wains?  
My vacant days go on, go on.

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"This Nature, though the snows be down,  
Thinks kindly of the bird of June:  
The little red hip on the tree  
Is ripe for such. What is for me,  
Whose days so winteringly go on?

"I ask less kindness to be done—  
Only to loose these pilgrim-shoon,  
(Too early worn and grimed,) with sweet,  
Cool deathly touch to these tired feet,  
Till days go out which now go on.

"Only to lift the turf unmown  
From off the earth where it has grown,  
Some cubit-space, and say, 'Behold,  
Creep in, poor Heart, beneath that fold,  
Forgetting how the days go on.'

"What harm would that do? Green anon  
The sward would quicken, overshone  
By skies as blue; and crickets might  
Have leave to chirp there day and night  
While my new rest went on, went on.

"—A Voice reproves me thereupon,  
More sweet than Nature's when the drone  
Of bees is sweetest, and more deep  
Than when the rivers overleap  
The shuddering pines, and thunder on.

"God's Voice, not Nature's! Night and noon,  
He sits upon the great white throne  
And listens for the creatures' praise.  
What babble we of days and days?  
The Day-spring He, whose days go on.

"He reigns above, he reigns alone;  
Systems burn out, and leave his throne:  
Fair mists of seraphs melt and fall  
Around him, changes amid all—  
Ancient of Days, whose days go on.

"He reigns below, he reigns alone,  
And, having life in love forgone  
Beneath the crown of sovran thorns,  
He reigns the Jealous God. Who mourns  
Or rules with him, while days go on?

"By anguish which made pale the sun,  
I hear him charge his saints that none  
Among his creatures anywhere  
Blaspheem against him with despair,  
However darkly days go on.

"Take from my head the thorn-wreath brown!  
No mortal grief deserves that crown.  
O supreme Love, chief misery,  
The sharp regalia are for THEE  
Whose days eternally go on!

"For us—whatever's undergone,  
Thou knowest, wilt what is done.  
Grief may be joy misunderstood;  
Only the Good discerns the good.  
I trust thee while my days go on.

"Whatever's lost, it first was won:  
We will not struggle nor impugne.

Perhaps the cup was broken here,  
That Heaven's new wine might show more  
clear.

I praise thee while my days go on.

"*I praise thee while my days go on ;  
I love thee while my days go on :  
Through dark and dearth, through fire and  
frost,  
With emptied arms and treasure lost,  
I thank thee while my days go on.*

"And having in thy life-depth thrown  
Being and suffering, (which are one,)  
As a child drops his pebble small  
Down some deep well, and hears it fall  
Smiling—so I. *THY DAYS GO ON.*"

This is Mrs. Browning's especial key. To sing and to say such things, she was born and trained in the school of suffering, and given to us. She was a strong-minded and more passionate Cowper, with an infinite endowment of soul and vision—which, indeed, are one. Through her own tears she saw the golden headlands of eternal truths. Of this same order of poems in which this glorious woman walks steadily along the cliffs in the dark night, and storm of sorrow, we notice the lines called *Only a Curl*. They will explain themselves to many a broken-hearted mother, and be a consolation.

"Friends of faces unknown and a land  
Unvisited over the sea,  
Who tell me how lonely you stand  
With a single gold curl in the hand  
Held up to be looked at by me—

"While you ask me to ponder and say  
What a father and mother can do,  
*With the bright fellow-locks put away  
Out of reach, beyond kiss, in the clay  
Where the violets press nearer than you.*

"Shall I speak like a poet, or run  
Into weak woman's tears for relief?  
*O children! I never lost one—  
Yet my arm's round my own little son,  
And Love knows the secret of Grief.*

"God lent him and takes him," you sigh;  
—Nay, there let me break with your pain;  
God's generous in giving, say I—  
And the thing which he gives, I deny  
That he ever can take back again.

"*He gives what he gives.* I appeal  
To all who bear babes in the hour  
When the veil of the body we feel  
Rent round us—while torments reveal  
The motherhood's advent in power,

"And the babe cries!—has each of us known  
By apocalypse, (God being there

Full in nature,) the child is our own,  
Life of life, love of love, moan of moan,  
Through all changes, all times, everywhere

"He's ours and forever. Believe,  
O father! O mother! look back  
To the first love's assurance. To give  
Means with God not to tempt or deceive  
With a cup thrust in Benjamin's sack.

"He gives what he gives. Be content!  
He resumes nothing given—be sure!  
God lend? Where the usurers lent  
In his temple, indignant he went  
And scourged away all those impure.

"He lends not; but gives to the end,  
As he loves to the end. If it seem  
That he draws back a gift, comprehend  
Tis to add to it rather—amend,  
And finish it up to your dream—

"Or keep—as the mother will toys  
Too costly, though given by herself,  
Till the room shall be stiller from noise,  
And the children more fit for such joys,  
Keep over their heads on the shelf.

"So look up, friends! *you*, who indeed  
Have possessed in your house a sweet piece  
Of the Heaven which men strive for, *must need  
Be more earnest than others are—speed  
Where they loiter, persist where they cease.*

"You know how one angel smiles there.  
Then weep not. *'Tis easy for you  
To be drawn by a single gold hair  
Of that curl, from earth's storm and despair,  
To the safe place above us. Adieu.*"

The reader must go to the book, the volume of *Last Poems*. There are many in quite other keys, upon which we will not dwell. We have quoted till we are ashamed to quote more. Of the writer's amazing command over language and meter, for interpreting passion, and interpenetrating words with passion, we must refer to *Bianca among the Nightingales*. Our age has had, and has many noble poets, but we had rather have said farewell to any one of them than to this gifted woman. She was less a cultivator of the art of poetry than many, but she was a poet. Her emotions and experiences frequently hurried her into great errors of meter, and sometimes a passing impulse with her became a generalization; but she found her poems in the deepest wells of the human heart, and she let down her words—buckets of water into dry wells—into parched hearts. Thus, beyond almost any other poet of our day, we may call her the Consoler.

From the Edinburgh Review.

## MEMOIRS OF RICHARD THE THIRD.\*

It was the shrewd remark of Johnson, that when the world think long about a matter, they generally think right; and this may be one reason why attempts to whitewash the received villains or tyrants of history have been commonly attended with indifferent success. The ugly features of Robespierre's character look positively more repulsive through the varnish of sophistry which M. Louis Blanc has spread over them. The new light thrown by Mr. Carlyle on the domestic and political career of Frederic William of Prussia, the collector of giants, simply exhibits him as the closest approximation to a downright brute and madman that was ever long tolerated as the ruler of a civilized community. Despite of Mr. Froude's indefatigable research, skillful arrangement of materials, and attractive style, Henry the Eighth is still the royal Bluebeard, who spared neither man in his anger nor woman in his lust; and hardly any perceptible change has been effected in the popular impression of Richard the Third, although since 1621 (the date of Buck's History) it has continued an open question whether he was really guilty of more than a small fraction of the crimes imputed to him.

Walpole's *Historic Doubts* is amongst the best of his writings. If he was advocating a paradox, he believed it to be a truth; and in the subsequent encounter with Hume, he has the advantage which thorough acquaintance with the subject must almost always give over the ablest antagonist, whose original views were based upon superficial knowledge. Yet no part of this remarkable essay is freshly remembered, except an incidental reference (on which the ingenious author laid little stress) to the apocryphal testimony of the Countess of Desmond, who had danced with Richard in her youth,

and declared him to be the handsomest man at court, except his brother Edward, confessedly the handsomest man of his day. Mr. Sharon Turner's learned and conscientious recapitulation of the good measures, enlightened views, and kindly actions of Richard has proved equally inoperative to stem the current of obloquy.\* Why is this? Why do we thus cling to a judgment which, we are assured, has been ill-considered, to the extent of uniformly opposing a deaf ear to motions for a new trial? Is it because the numerical majority of the English public are in the same predicament as the great Duke of Marlborough, who boldly avowed Shakspeare to be the only History of England he ever read? because the ground once occupied by creative genius is thenceforth unapproachable by realities and unassailable by proofs? The image of the dramatic Richard, as represented by a succession of great actors, is vividly called up whenever the name is mentioned—

"And when he would have said King Richard  
died,  
And called a horse, a horse, he *Burbage*  
cried;"

and this is unluckily one of the rare instances in which, if it be not profanation to say so, the truth and modesty of nature have been overstepped by our immortal bard to produce a character of calculated and unmitigated atrocity. In the very first scene, the hero, after expatiating on his deformities, concludes:

"And therefore—since I can not prove a lover  
To entertain these fair, well spoken days,  
I am determinéd to prove a villain."

Moralists have laid down that dwarfs and misshapen persons are commonly out

\* *Memoirs of Richard the Third and some of his Contemporaries.* With an Historical Drama on the Battle of Bosworth. By JOHN HENRAGE JESSE. London. 1861.

\* See the *History of England during the Middle Ages*, vol. iv. book v. chap. i. All the best materials and weightiest authorities for the defense of Richard are collected in this chapter.

of humor with the world, but it may be doubted whether any one in actual life ever indulged in this sort of self-communing at the outset of a career. The far truer picture of a man hurried from crime to crime by ambition is Macbeth; and the most virulent assailants of Richard's memory are agreed in allowing him the kind of merit which Fielding gives to Jonathan Wild, who, finding, after due deliberation, that he could gain nothing by refraining from a good action, did one. By presupposing the worst, such a commencement checks artistic development whilst it violates the truth of history; and not the least interesting or instructive result, anticipated from an impartial examination of the authorities, will be the insight we shall attain by means of them into the heaven-born poet's mode of selecting and working up the materials of his play.

Mr. Jesse frankly owns that his work has been composed without any definite object, moral, critical, antiquarian, or philosophical. It "emanated indirectly in the drama," entitled *The Last War of the Roses*, which occupies more than a fourth of the volume, and strikes us to be an attempt, more ambitious than successful, to rival the greatest of dramatists on his own ground. "To the merit of novelty," says the author in his preface, "whether of facts or arguments, he can prefer but a very trifling claim. To compress scattered and curious information, and, if possible, to amuse, have been the primary objects of the author." The result is a very agreeable addition to popular literature, containing a good deal that will be new as well as interesting to the class of readers for whose amusement he is in the habit of catering. But if the life of Richard was to be rewritten at all, the task should have been undertaken in a more serious and meditative mood, with a full sense of its responsibilities, and a keener insight into the complex causes of the strange notions of right and wrong, legality and illegality, which marked the period in dispute.

During the whole of the Plantagenet dynasty, the succession to the crown was involved in the most mischievous uncertainty. Except in the case of an adult eldest son, inheriting from the father, there was no rule of descent universally recognized. Whether more remote lineals should be preferred to collaterals, or

whether claims by or through females were admissible at all, were questions frequently and most furiously agitated; nor was any title deemed absolutely unimpeachable until ratified by the popular voice, or, what was equally or more potent, by the assent of the landed aristocracy. It is not going too far to say that any member of the royal family, or even any peer related to it by blood, had a chance of the throne; hence the plentiful crop of conspiracies constantly springing up: hence, also, the eagerness of the sovereign, *de facto*, to get rid, by any means, foul or fair, of every possible competitor. To bear no brother near the throne was not, in the fifteenth century, peculiar to the Turk; and servile parliaments were never wanting to pronounce or ratify the cruel sentences of fear, expediency, or hate. The wholesale beheading, hanging, and quartering, that took place after each alternation of fortune during the Yorkist and Lancastrian battles, were only exceeded in atrocity by the vindictive and insulting butcheries of prisoners perpetrated on the field. It has been computed that not fewer than eighty princes of the blood died deaths of violence during these wars; and the ancient nobility would have been well-nigh extinguished, altogether, had the struggle been prolonged. Edward IV.'s first parliament included in one Act of Attainder, Henry VI., Queen Margaret, their son Edward, the Dukes of Somerset and Exeter, the Earls of Northumberland, Devon, Wiltshire, and Pembroke, Viscount Beaumont, Lords Ross, Neville, Rougemont, Dacre, and Hungerfield, with one hundred and thirty-eight knights, priests, and esquires, who were one and all adjudged to suffer all the penalties of treason. The prevalent doctrine of these times as to religious and moral obligations is comprised in these lines:

"*York*. I took an oath he should quietly reign.

"*Edw*. But for a kingdom any oath may be broken.

I'd break a thousand oaths to reign one year.

"*Rich*. An oath is of no moment, being not took

Before a true and lawful magistrate

That hath authority over him that swears.  
Henry had none, but did usurp the place."

Subjects had no more respect for oaths than princes; and what we now under-



stand by loyalty was almost unknown. We are indebted to Lord Macaulay's penetration and sagacity for the discovery that the Scottish clans, which so long upheld the cause of the Stuarts, were animated far more by local sympathies and antipathies, especially by hatred of the Campbells, than by chivalrous devotion to a fallen dynasty. The Yorkists and Lancastrians were influenced by an analogous class of motives, or by purely selfish views. Most of the greater barons chose their side from hopes of personal aggrandizement, or from private pique. The most notorious example was Warwick, the King-maker, who feasted daily thirty thousand persons in his castle-halls, who could rally thirty thousand men under his banner, and carry them, like a troop of household servants, from camp to camp, as passion, interest, or caprice dictated. It is a remarkable fact that, in 1469, each of the rival kings was under duress at once—Edward IV. at Middleham, and Henry VI. in the Tower, whilst the Nevilles were wavering between the two.\* It has been taken for granted that the people, as contradistinguished from the barons, were Yorkists, who were undoubtedly popular in the city of London, where Edward IV. won all hearts by his courtesy and hospitality. Neither in city or country, however, do we find any national or public-spirited preference for either dynasty. When the commoners rose, they rose from a sense of personal oppression, or, like the followers of Robin of Redesdale, in order to redress some local grievance.

There is not a more striking illustration of the gross ignorance and superstition of the age than the general belief that the mists which disordered the tactics of Warwick's army at Barnet were raised for the purpose by Friar Bungay. It was, in fact, the age of all others in which unscrupulous ambition might hope to thrive; in which every thing was possible for courage, military skill, statecraft, and dogged determination, backed by birth and fortune. If Richard has attained a bad pre-eminence for treachery and bloodthirstiness, it must be owned that he succumbed to temptations from which few of his family or generation would have turned away.

Although Shakspeare assigns him a

prominent part in the battle of Wakefield, where his father, the Duke of York, was taken and put to death after exclaiming,

"Three times did Richard make a lane to me,  
And thrice cried, Courage father, fight it out ;"

Richard (born Oct. 2, 1452) was only in his ninth year when that battle was fought, and he narrowly escaped the fate of Rutland. The Duchess of York took refuge with her younger children in the Low Countries, and remained there, till the triumphant entry of Edward IV. into London and the decisive victory of Towton restored them to their country and to more than the full immunities of their rank. The title of Duke of Gloucester, with an ample appanage in the shape of lordships and manors, was at once conferred on Richard, who, at an unusually early age, was also appointed to three or four offices of the highest trust and dignity. He amply justified the confidence reposed in him. He had the same motive as the weak, wavering Clarence for joining Warwick, when the King-maker broke with Edward and sent the haughty message :

"Tell him from me that he has done me wrong,  
And for it I'll uncrown him ere't be long."

What the precise wrong was, is still a mystery. The repudiation of the contract with the Lady Bona, sister of Louis of France, is doubted by Hume, and rejected by Lingard, as the cause of quarrel; whilst the author of *The Last of the Barons* gives plausible reasons for the conjecture on which the plot of that romance mainly turns—that Warwick took just offense at an insult offered by the amorous monarch to one of his daughters. The hand of the eldest, the Lady Isabella, was the bait with which the King-maker lured Clarence; and Richard had been from early youth attached to the youngest, (whom Shakspeare calls the eldest,) Lady Anne; a circumstance which may partly account for his rapid success in the famous courtship scene; the forced and overcharged character of which is so glossed over and concealed by the consummate art of the execution, that we are puzzled in what sense to receive the exulting exclamation :

"Was ever woman in such humor wooed  
Was ever woman in such humor won ?"

\* Lingard, vol. iv. p. 168.

Shakspeare makes Richard remain true to Edward from calculation; his chances of the crown being materially increased by the defection of Clarence. But a man may not be the less honest, because honesty is his best policy; and it is enough that in every emergency he gave Edward the wisest and apparently most disinterested counsel, as well as the support of his tried courage and military skill. He commanded the right wing of the Yorkist army at Barnet, and was directly opposed to Warwick, the most renowned warrior of the period. Personal prowess was then essential in a leader, and Gloucester and Warwick are reported to have fought hand-to-hand in the *mêlée*. According to the tradition, the King-maker evaded the conflict as long as he could, and then felled Richard unwounded to the ground. At Tewkesbury he commanded the van, and was confronted with the Duke of Somerset, who had taken up so formidable a position, fenced by dikes and hedges, that to carry it seemed hopeless. After a feigned attack and a short conflict, Gloucester drew back as if for a retreat. Somerset, rash and impetuous, was deceived by this maneuver, and left his vantage ground, when Gloucester faced about and fell upon the Lancastrians so furiously and unexpectedly that they were driven back in confusion to their intrenchments, which the pursuing force entered along with them. Lord Wenlock, who, by coming to their assistance with his division, might have beaten back Gloucester, never stirred; and Somerset no sooner regained his camp, than, riding up to his recreant friend, he denounced him as a traitor and coward, and stopped recrimination and remonstrance by dashing out his brains with a battle-ax.

The chief glory of this well-fought field belonged to Richard; but unluckily it was the scene of a tragedy in which the part of first villain has been popularly assigned to him. We are required to believe that directly after leading his troops to victory, his instinctive bloodthirstiness induced him to take the lead in a cowardly assassination in which others were only too anxious to anticipate him. The common story runs that after the battle of Tewkesbury, Margaret and her son, aged eighteen, were brought before Edward, who asked the prince in an insulting manner how he dared to invade his dominions, and irritated by a spirited reply, struck him on the face with his gauntlet; whereupon

the Dukes of Clarence and Gloucester, Lord Hastings, and Sir Thomas Grey, taking the blow as a signal, hurried the prince into the next room, and there dispatched him with their daggers. A contemporary historian, Fabyan, says that the King "strake him with the gauntlet upon the face, after which stroke, so by him received, he was by the Kynge's servants incontinently slaine." The Chronicle of Croyland, of nearly the same date, says, "that he was slain by the avenging hands of several, (*ultricihus quorundam manibus*)." The names of the alleged perpetrators were first given by Hall, and afterward copied from him by Holingshed. Stowe adopts Fabyan's version, which is much the most probable; and the King's brutality is not utterly destitute of palliation, when it is remembered how his brother, the Earl of Rutland, had been put to death after the battle of Wakefield. Mr. Sharon Turner, relying on what he deems an authentic MS. in the Harleian Collection, says that "the Prince was taken as flying toward the town, and was slain in the field." Bernard Andreas, writing in 1509, says, "*belligerens ceciderat*."

That Richard stabbed Henry VI. with his own hand in the Tower, will appear still more improbable; especially when we consider that during the whole of Edward IV.'s reign he was playing for popularity, and trying to base it on a character for sanctity and self-denial. According to Shakspeare, directly after stabbing the young prince, he hurries off to a fresh murder.

"*Glo.* Clarence, excuse me to the King my brother.

I'll hence to London, on a serious matter: Ere ye come there, be sure to hear some news.

"*Clar.* What? what?

"*Glo.* The Tower! the Tower!"

Toward the conclusion of the scene, his absence and presumed errand are thus glanced at:

"*King Edw.* Where's Richard gone?

"*Clar.* To London, all in post; and as I guess

To make a bloody supper in the Tower.

"*King Edw.* He's sudden, if a thing comes in his head.

Now march we hence."

This is taking the matter coolly enough, in all conscience; and to add to the absurdity, the Tower was not, at that time,

familiarly associated with images of murder and misery, nor would it have been apostrophized as

"Ye towers of Julius, London's lasting shame,  
With many a foul and midnight murder fed."

It was a royal palace, in which the queen of Edward IV. was residing at the time, whilst Henry VI., who had been placed in the front of the Yorkist army at Tewkesbury to give him a chance of being shot by a friendly arrow, was certainly not in the Tower on the eve of the battle. He is supposed to have died seventeen days afterward, on the night of the twenty-first of May, 1471, the day of King Edward's return to London. His death was attributed to grief, and the body was carried in solemn procession to St. Paul's, where it was exposed to public gaze, "the face open, so that every man might see him." The face might have been so composed as to tell no tales; and the exposure of the body was the almost invariable practice in cases of alleged or suspected death by violence. The bodies of Edward II., Richard II., Thomas of Woodstock, and Humphrey, Duke of Gloucester, were similarly exposed. Few doubted that Henry was put to death: it being quite in accordance with custom and the spirit of the times for the king *de facto* to deal summarily with his rival. The shortness of the interval between the imprisonment and the death of princes is proverbial. The strange, if not absolutely incredible incident of so common a catastrophe, was that a prince of the blood should be named to do the deed, or volunteer to do it as a labor of love. No circumstance that can heighten the atrocity is omitted in the scene where Gloucester, having already killed Henry, stabs him again, exclaiming:

"If any spark of life be yet remaining,  
Down, down, to hell; and say I sent thee  
there."

The motive which seems wanting in the preceding instances was undeniably strong enough to raise a presumption that Richard contrived or hastened the death of Clarence, who had once stood in the way of his love, and still stood in the way of his interest and his ambition. When all other means failed to keep Richard from the Lady Anne, Clarence, who had married the eldest daughter of the King-maker, and wished to appropriate the entire inheritance,

caused his sister-in-law to be concealed; and she was eventually found by Richard in an obscure corner of London, in the garb of a kitchen-maid. Whether this disguise was voluntarily assumed to escape from an unwelcome suitor, must be left to conjecture. She accepted his protection without scruple, and was placed by him in the sanctuary of St. Martin's-le-Grand, from whence she was transferred to the guardianship of her uncle, the Archbishop of York. That she was wooed and won during her attendance on the corpse of her father-in-law, is a poetic fiction: an *alibi* might easily be made out for both parties; and it is further remarkable that no objection was made to their union on that account. The date of the marriage is unknown; but as she bore him a child in 1473, it is inferred that it took place as soon as her year of mourning had expired.

Clarence vowed that if his brother would have a bride, she should be a portionless one. "He may well have my lady sister-in-law, but we will part no inheritance," are the words attributed to him in the Paston Letters; and Sir John Paston writes: "As for other tidings, I trust to God that the two Dukes of Clarence and Gloucester shall be set at one by the award of the King." It was arranged that each should plead his own cause in person before the King in council; and (according to a cotemporary) they both exhibited so much acuteness, and found arguments in such abundance, that the whole audience, including the lawyers, were lost in admiration and surprise. The decision, carried out by an act of Parliament, was, that the property should be equally divided between the two sisters, the husbands retaining life interests in their wives' estates respectively. This settlement, equitable and impartial as it looks, was based on a gross injustice, for it overlooked the prior claim of the King-maker's widow, who, as heiress of the Beauchamps, Earls of Warwick, had brought him the largest of his estates, and by this award was left dependent, if not penniless.

Richard was not the man to forgive or forget Clarence's unbrotherly conduct, although his ambition soared too high to be coupled with cupidity. His superiority to all sordid considerations was strikingly

displayed during the invasion of France, in 1475, when Edward, at the head of one of the finest armies that ever left the English coast, was cajoled and out-manuevered by Louis XI. into doing worse than nothing. The expedition ended in a disgraceful treaty, by which Edward was to receive certain sums of money, which he wanted for his personal pleasures. Bribes were plentifully distributed amongst the nobles and courtiers who were thought able to facilitate this result. Lord Howard received twenty thousand crowns, in money and plate, beside a pension. The Lord Chancellor and the Master of the Rolls pocketed large sums. What is most extraordinary, they gave written acknowledgments, which were regularly docketed by their royal paymaster. The apologists for Bacon, who maintain that the custom of receiving presents by judges and privy-councillors endured to his day, may point to these receipts in support of their theory; others may point to them as proofs of all-pervading corruption or unblushing audacity. The less charitable supposition is favored by what De Commynes has recorded of Hastings, who, more prudent than his colleagues, declined the transaction in the proposed shape, saying: "If you wish me to take the money, you must put it into my sleeve."

Richard alone refused to barter English honor for French gold. "Only the Duke of Gloucester, who stood aloof on the other side for honor, frowned at this accord, and expressed much sorrow, as compassionating the glory of his nation blemished in it." Habington, from whom we quote, suggests that the Duke had a further and more dangerous aim, "as who, by the dishonor of his brothers, thought his credit received increase; and by how much the King sunk in opinion, he should rise." Bacon adopts the same method of depreciation: "And that out of this deep root of ambition it sprang that, as well at the treaty of peace as upon all other occasions, Richard, then Duke of Gloucester, stood ever upon the side of honor, raising his own reputation to the disadvantage of the King, his brother, and drawing the eyes of all (especially of the nobles and soldiers) upon himself." According to this mode of reasoning, brotherly love and loyalty required him to be as corrupt and self-seeking as the rest. Yet surely if he was content to rise by patriotism and integrity, it is enough. If he assumed virtues that

he had not, this, at all events, refutes the notion that he wantonly and gratuitously perpetrated acts which must have exposed him to general execration and distrust; and we have here, from his worst calumniators, the admitted fact that down to 1475 his means were noble, be his end and motives what they may.

With regard to his alleged participation in the death of Clarence, the charge rests exclusively on a vague presumption of his having hardened the heart of Edward, already sufficiently incensed against Clarence, and ready at all times to trample down all ties of relationship and all feelings of mercy when his throne was in danger, or his vindictiveness was roused. Clarence had joined Warwick in impeaching his title and denying his legitimacy. Untaught by experience, he had recently indulged in intemperate language against his sovereign, who actually appeared in person as the principal accuser at the trial, which was of the most solemn description known to the law. The Duke was found guilty by his peers, and both Houses of Parliament petitioned for his execution, and afterward passed a bill of attainder. He was also peculiarly obnoxious to the Queen and her friends, Rivers, Hastings, and the Greys.

"The only favor," says Hume, "which the King granted his brother after his condemnation, was to leave him the choice of his death; and he was privately drowned in a butt of malmsey in the Tower; a whimsical choice, which implies that he had an extraordinary passion for that liquor." Mr. Bayley (*History of the Tower*) suggests that his well-known fondness for this wine was the foundation of the story, although, so far as evidence goes, the fondness for the wine is mere matter of conjecture; and we rather agree with Walpole, that "whoever can believe that a butt of wine was the engine of his death, may believe that Richard helped him into it, and kept him down till he was suffocated." Yet this is precisely what some do believe, or maintain. "After Clarence," writes Sandford, "had offered his mass-penny in the Tower of London, he was drowned in a butt of malmsey; his brother, the Duke of Gloucester, assisting thereat with his own proper hands." The most plausible solution of the enigma is suggested by Shakspeare, when he makes the First Murderer tell the Second; "Take him over the costard with the hilts of thy sword, and then throw him into the malm-



sey butt in the next room." The dialogue on Clarence's awakening is :

"*Clar.* Where art thou, keeper ? Give me a cup of wine.

"*First Murd.* You shall have wine enough, my lord, anon."

After a brief parley, the First Murderer stabs him, exclaiming :

"Take that, and that ; if all this will not do, I'll drown you in the malmsey butt within."

He carries out the body, and returns to tell his relenting comrade :

"Well, I'll go hide the body in some hole, Till that the Duke give order for his burial."

Clarence's groans may have been stifled in a full butt conveniently nigh, or the body may have been temporarily hidden in an empty one.

Richard was for several years Lord Warden, or Keeper, of the Northern Marches, and while residing in a kind of viceregal capacity at York, he so ingratiated himself with the people of the city and neighborhood, that they stood by him to the last. In 1482, he commanded the army which invaded Scotland, entered Edinburgh in triumph, and speedily brought the Scottish king to terms. On the death of his brother he was in the fullness of his fame as a soldier and statesman. He was also the first prince of the blood ; and he must have been endowed with an amount of stoical indifference and self-denial seldom found in high places at any time, if no ambitious hopes dawned upon him. Edward IV. died on the ninth April, 1483, leaving two sons, Edward V., twelve years and five months old, and Richard Duke of York, between ten and eleven, besides several daughters. The court and country were divided between two parties, that of the Queen and her kinsmen, and that of the ancient nobility, who had taken offense at the honors lavished on her upstart connections. The malcontents, headed by the Duke of Buckingham and favored by Lord Hastings, naturally dreaded the aggrandizement of their adversaries, and were prepared to go any lengths to prevent them from getting exclusive possession of the King's person, and governing in his name. The Queen and her brothers, on the other hand, resolved to make the best of the situation, and took immediate measures for overawing the threatened resist-

ance to their schemes. The young King was at Ludlow Castle, under the guardianship of his maternal uncle, Anthony Woodville, Earl of Rivers, renowned for his gallantry and accomplishments. He had a large military force under his command, and it was proposed that he should escort the King to London, at the head of all the men he could muster. This was vehemently opposed by Hastings, a member of the council at which the plan was broached, and his opposition so far prevailed, that the escort was nominally reduced to two thousand men. About the same time, Buckingham put himself into communication with Richard, who was quietly watching the progress of events at York, and abiding the moment when his interposition would become, or be thought, indispensable for the salvation of the realm. A divided nobility, a minority, and a female regency afforded ample materials, in those unsettled times, for the aspirant to supreme power to work upon, without openly or prematurely assuming the part of the ungrateful brother and unnatural uncle. According to Sir Thomas More, he sent letters to Lord Rivers, with full assurances of duty and subjection to his nephew, and love and friendship to himself ; "so that he, seeing all things calm and peaceable, came up with no greater number of followers than was necessary to show the King's honor and greatness. At Northampton, the regal party were met by the Dukes of Gloucester and Buckingham, by whose advice the King was sent on to Stony Stratford, for the sake of more convenient lodging, while Rivers was feasted by the two Dukes "with all demonstrations of joy, and signs of friendship."

As soon as he was gone, they entered into consultation with a select number of their friends, and spent the greater part of the night in conference. The result became known in the morning, when, after putting Rivers under arrest, and laying an embargo on his suite, they hurried on to Stratford, and arrested Lord Richard Gray, (the Queen's son by her first husband,) Sir Thomas Vaughan, and Sir Richard Howse, on a charge of conspiracy, in the very presence of the King. Despite his tears and entreaties, they also removed from about his person all on whom they could not confidently reckon to act as their creatures. They then escorted him to London, and were met at Hornsey "by the Mayor and Sheriffs, with all their brethren

ren, the Aldermen in scarlet, and five hundred commoners on horseback, in purple-colored gowns." "In this solemn cavalcade," continues Sir Thomas More, "the behavior of the Duke of Gloucester to the King was very remarkable; for he rode bareheaded before him, and often, with a loud voice, said to the people, '*Behold your prince and sovereign*;' giving them on all occasions such an example of reverence and duty, as might teach them how to honor and respect their prince; by which action he so won on all the spectators, that they looked on the late misrepresentations of him as the effect of his enemies' malice, and he was on all hands accounted the best, as he was the first, subject in the kingdom."

The Protectorship was easily attained. It was conferred on him "by a great council of the nobility, who met to settle the government and choose a Protector, according to the usual custom of the minority of their kings."\* The next step was attended with difficulty. On hearing of the arrest of her brothers, the Queen, with her youngest son and daughters, had hurried into the sanctuary of Westminster; and her refusal to quit it, or trust her son out of her protection, was an impediment to the Protector's designs, as well as an injurious expression of distrust. He would have resorted to force, had not the Archbishop of Canterbury represented that it would be a thing not only ungrateful to the whole nation, but highly displeasing to Almighty God, to have the privilege of sanctuary broken in that church, which was first consecrated by St. Peter, "who came down, above five hundred years ago, in person, accompanied with many angels, by night, to do it;" in proof whereof, the prelate affirmed that St. Peter's cope, worn on the occasion, was still to be seen in the abbey. What could be done by persuasion, the Archbishop readily engaged to try; and, accompanied by several lords of the council, he forthwith proceeded to the sanctuary to argue the matter out with the Queen, who, influenced more by fear than argument, at length gave up the point. She led her son to the Archbishop and lords of council, and after solemnly confiding him to their care, she kissed him, and said: "Farewell,

mine own sweet son. The Almighty be thy protector! Let me kiss thee once more before we part, for God knows when we shall kiss again." The child was first carried to the Bishop of London's palace, where his brother was lodged, and, after a few days, they were both removed to the Tower, the ostensible reason being that they might be ready for the ceremony of the coronation.

Buckingham had probably entered fully into Richard's ulterior designs upon the crown, from their formation. Hastings was not so compliant. He had been the intimate, attached, and trusted friend of the late king, and his loyalty was proof against temptation. After he had been sounded through Catesby, his ruin and death was resolved upon; and gross as are the means described by Shakspeare in the council scene, where Richard exhibits his withered arm, they are little more than a metrical version of the text of More, who reports the Protector's words to have been: "Do you answer with *ifs* and *ands*, as if I charged them falsely? I tell you, they have done it, and thou hast joined with them in this villainy." He struck the table hard with his fist; upon which armed men rushed in, and seized the Archbishop of York, Lord Stanley, and several other lords, besides Hastings, who was "ordered forthwith to prepare himself for his death, for the Protector had sworn by St. Paul that he would not dine till his head was off. It was in vain to complain of severity or demand justice—the Protector's oath must not be broken; so he was forc'd to take the next priest that came, and make a short confession, for the common form was too long for the Protector's stomach to wait on; and being immediately hurried to the green, by the chappell within the Tower, his head was laid on a timber-logg, which was provided for repairing the chappell, and there stricken off."

Walpole objects that the collateral circumstances introduced by More do but weaken his account, and take from its probability. He urges that, cruel or not, Richard was no fool, and was not likely to lay the withering of his arm (if it ever was withered) on witchcraft, or to couple the Queen and Jane Shore together as accomplices, the Queen's aversion for her late husband's concubine being notorious. The sudden arrest and death of Hastings, however, are undenia-

\* Sir Thomas More. Lingard states that the House of Lords then always took upon itself to settle the government in cases of doubt or difficulty, and his authorities bear out the statement.

ble; and on the very same day, Earl Rivers, Lord Richard Grey, Vaughan, and Howse, were beheaded at Pontefract. These executions were consonant to the manners and violence of the times; of which Lingard furnishes a striking illustration by quoting the commission of the Lord High Constable, who is empowered to execute speedy justice, and distinctly enjoined to dispense with regular proofs and forms.

So inured were people to scenes of blood and the high-handed exertion of authority, that the citizens of London, by whom Hastings had been much esteemed, were easily persuaded that the public weal required him to be summarily dealt upon:

"*Buck.* Look you, my lord mayor:  
Would you imagine, or almost believe,  
Wer't not, that by great preservation  
We live to tell it you: the subtle traitor  
This day had plotted in the council-house  
To murder me, and my good lord of Gloster.

"*May.* Now fair befall you! he deserved his death,  
And your good graces both have well proceeded

To warn false traitors from the like attempts.  
*I never looked for better at his hands  
After he once fell in with Mistress Shore."*

The received accounts of Richard's mode of ascending the throne are contradictory, and it is difficult to believe that he laid much stress on the voices of the rabble in Guildhall, although here again Shakspeare is supported by More. Under a regular government, with a standing army and a centralized system of administration, a usurper who has force on his side may dispense with national support. Not so in times when authority was divided, when the whole population was more or less military, when the possession of the capital with the command of the public offices left the rest of the kingdom uncontrolled. Richard must have been sure of a powerful party, or he would never have ventured to present himself as king before the very parliament which he had summoned in the name of the nephew he deposed. This important fact is made clear by Mr. Gairdner, who, admitting that this parliament was not formally called together, asserts that it did meet, and that the petition to Richard to assume the crown was presented by a deputation of the Lords and Commons of England, accompanied by another from

the city of London, on the very day that had been originally appointed for its meeting.\* If after so many changes of dynasty, such frequent assertions and denials of title, any respect for hereditary right yet lingered in the public mind, it must have been rudely shaken by the imputed illegitimacy not only of the late king himself but of his children by his second wife. Stillington, Bishop of Bath and Wells, volunteered a deposition that Edward, at the time of his marriage with Lady Grey, had a wife living, Eleanor, daughter of the Earl of Shrewsbury; the bishop himself having married them, at the pressing request of Edward, without witnesses. This is one of the stories which people accept or repudiate, according to interest or inclination. It suited the notables, who were overpersuaded by Richard or dreaded the evils of a prolonged minority, to believe or affect to believe the bishop, and an act was subsequently passed on the assumption of its truth.

From this mock election in June, says More, he commenced his reign, and was crowned in July with the same provision that was made for the coronation of his nephew. The day before the ceremony he and his Queen rode from the Tower through the city to Westminster, with a train comprising three dukes, nine earls, and twenty-two barons. There was a larger attendance than usual of peers, lay and spiritual, and great dignitaries at the ensuing ceremony in Westminster Hall; and More records as most observable that the Countess of Richmond, mother to King Henry VII., bore up the Queen's train in the procession. Richard soon afterward left London on a royal progress toward York, where he was crowned a second time; and it was in this progress

\* *Letters and Papers illustrative of the Reigns of Richard III. and Henry VII.*, edited by James Gairdner, published by the authority of the Lord Commissioners of Her Majesty's Treasury, under the direction of the Master of the Rolls. London: Longman & Co. 1861. Vol. i. preface, p. xviii. Mr. Gairdner suggests in a note that there is reason to believe Sir T. More's *History of Richard III.* to be a translation of a work of Cardinal Morton. This may account for its Lancastrian bias. Walpole says: "I take the truth to be that Sir Thomas wrote his *Reign of Edward the Fifth* as he wrote his *Utopia*, to amuse his leisure and exercise his fancy." The only strictly cotemporary historians or chroniclers are Fabyan, a citizen of London, and the author of the *Chronicle of Croyland*, a monk. Neither saw or heard more than the surface of events or the current rumors of the time.

that he is reported to have planned the crime which has done more to blacken his memory than all his other misdeeds put together, being indeed the main cause why men's minds were thenceforth predisposed to give credence to any barely plausible accusation that might be brought against him. Feeling this, Walpole has exerted his utmost powers of research and ingenuity to prove that Richard did not cause his nephews to be murdered in the Tower, and he has pointed out many material improbabilities and discrepancies in the popular narrative. He lays great stress on the admissions of More and Bacon, that it was long doubted whether the princes were murdered or had died during Richard's reign at all. He insinuates that, if one or both of them had been found in the Tower on the accession of Henry VII., that politic monarch would have got rid of them with no more scruple than he showed in getting rid of Clarence's eldest son and heir, the Earl of Warwick, whom Richard spared; and he contends that Perkin Warbeck was no imposter, but

the genuine Duke of York, who had been saved by Tyrrell and his accomplices when they smothered his elder brother.

This would be no defense for Richard, if it were true; and the charge in question differs from the rest in the most essential point. Far from being a posthumous production of Lancastrian writers, it was pointedly and repeatedly bruited about at a time when the readiest modes of refutation, if it was groundless, were in Richard's power, and when he had the most powerful of all imaginable motives for resorting to them. When he found foreign princes, including even Louis XI., giving open expression to their abhorrence, and thorough-going adherents like Buckingham falling off, why did he not at once produce his nephews in the open face of day? Even the conventional farce of exposing the bodies was not hazarded, from a conviction probably that two at once would be too much for the most ignorant or slavish credulity.

[TO BE CONTINUED.]

From the North British Review.

## PRESENT MOVEMENTS AMONG THE FRENCH CLERGY.\*

WE must not form our judgment of the French clergy too exclusively from the Bishop of Poitiers or the Archbishop of Toulouse. There are others at work, who are but little like them. Their quiet labors are more Christian, more patriotic, and more hopeful. The mere fact that such men exist at all, is one to be noted and pondered: for, at such a time as this, it is full of significance; and, as men sincerely seeking truth, they deserve our cordial sympathy.

Perhaps it is not easy for us, on this side of the Channel, to estimate justly either the sadness or the difficulty of the task to

which they have felt themselves called. We are accustomed to look upon the French with a sort of wondering curiosity; they seem so different from ourselves. The convulsions in their political system—which, for more than seventy years, have been the object alternately of the dread and the compassion of Europe—have been only a too faithful reflection of the religious and intellectual vicissitudes of the inner life. In philosophy, system after system has been the "rage," and has disappeared with surprising rapidity. The great French philosophical writers have had, as Mr. Lewes has pointed out, this great advantage over those of Germany, that they have been as admirable for the clearness and attractiveness of their style, as the Germans have been remarkable for the re-

\* *Principes Généraux d'une Théodicée Pratique.* Paris: J. B. Pélagaud et Co. 1860.

*De la Vie et de la Mort des Nations.* Paris: J. B. Pélagaud et Co. 1860.



verse. And no one who has even a slight acquaintance with the literature of the two countries can doubt the truth of this remark, or fail to perceive that this is one cause why the French systems have so rapidly in each case succeeded in taking hold of the popular mind. But another remark may also be made, which will go far to account for their failing so signally to maintain the ground which they had won. While their style has been clear and attractive, their thoughts have been wanting in depth. Not that they have been deficient in talent and cleverness—both these qualities they have possessed in a high degree—but in genius, in true philosophical insight, they have been poor. Hence their systems were eagerly grasped; for they were readily understood, and they appeared to solve many a tormenting problem; but, weighed in the balance of a month's experience, they were found wanting. They were, after all, not grappling with, but avoiding, the questions which deeply stir the mind of man. From Condillac onward—Condillac, who found fault with Locke for laying the sources of our ideas *too deep*—the tendency of French philosophy has been more and more steadily toward the surface. It has seemed to know less and less of the real depths of the soul. Victor Cousin's words, indeed, were grand, and seemed to mean much; but his mind was at best eclectic, not creative. He himself seemed to hover hither and thither, uncertain whither he went; and though at one time he was followed by a vast multitude of pupils, who worshiped him with something like idolatry, yet they have rapidly dwindled to almost nothing. After him, the name of Auguste Comte became the most conspicuous. Weary of unceasing contradictions, he raised the cry that the question of life is insoluble. We are to leave the world unseen to itself, and attend to the one which is presented to our senses. The search after wisdom is to end in the coördination of the sciences; and we are to find rest unto our souls in the construction of a "Positive Philosophy," based upon the objects which we see, and touch, and handle. But Comte has proved a traitor to his own system. "A lady named Clotilde" dispersed his theory, and proved to him that the positive philosophy was unable to account for the mightiest of the springs of human action. There is, after all, something which we do not receive through the senses. A system which

left no room for love must either expand or break. He chose the latter. The choice did him credit; he preferred truth to theoretic consistency. But the fact that he was reduced to such a dilemma, showed the unsoundness of his theory. The system which was to have united all philosophy could not maintain its own unity. Utter anarchy is the result; and though it may be true, as we are told, that philosophy exhibits more activity in France than in any other country of Europe, it is equally true that not one of its systems has as yet been able to take any deep root in the French mind.

Meanwhile, what of religion? what of that region of the mind which is in direct connection with the world of spirits? Religion seems in France to have become almost entirely a thing of the past. Men talk of it as they do of things gone by. They examine the old belief as they do the fossil remains of antiquity. Human faith and human understanding have drifted into an apparently hopeless antagonism. The great gulf which has been fixed between science and revelation is impassable, and it exercises a fatal influence upon the first, and is a hindrance to any intelligent reception of the second. The instincts of the human mind urge irresistibly to progress, and Christian faith in France is placed in unnatural hostility to progress: therefore Christian faith is thrown aside, and the human mind enters without chart or compass upon the "dim unknown," to find soon that without faith science is but a name, and that without belief in another world it is impossible to interpret this. In politics, in philosophy, in religion, the French have been wandering in dry places, seeking rest and finding none.

All this is sad; it is a mournful spectacle even for us to look on; but what must it be to feel it as part of ourselves? how must these things appear to a thinking Frenchman—to one who must feel the sin and the shame as in some measure his own? It is more painful to see a brother go wrong than a stranger. To perceive the real beauty of a nation's character, to see the grandeur of its mission, to feel its life-blood throbbing in all the noblest impulses of one's own heart; and then to see that mission betrayed—that beauty turned into a hideous caricature—that national character burlesqued by one's own flesh and blood—this is terrible. And there are Frenchmen, and more of them than we

are apt to suppose, who are bearing this burden. There are some who have caught a glimpse of life, and can recognize by contrast the lineaments of death. How melancholy is the tone of such words as these: "*Formerly*, when there was a religion in France, when some general belief in the relations which bind together earth and heaven supplied a definite aim to human life;" or such as these: "*Formerly*, when French society had a soul." Yet these are the words of a writer in a recent number of a prominent French review. There is a tone of sadness often pervading even those French books which are written to be amusing. The want of belief has choked the springs of hope; and even in his gayety the writer seems, with more or less consciousness, to feel that he is acting a part.

"*When French society had a soul.*" The words are startling; but what if they express a truth? They sound metaphorical? but we are so little accustomed to ask ourselves the meaning of our words, that truth itself often sounds like metaphor. If there is such a thing as national life, if there is a living principle which animates a nation as a whole, which appears amid all the diversities of individual character, and constitutes the many members one body; if this national character, is impressed upon a people by Him who fixed the bounds of their habitation—if it may be refined, ennobled, and quickened by reference to him, and by obedience to the mission which he has given; or, on the other hand, corrupted or destroyed by forgetting or denying him—if this be so, then it is certainly no metaphorical use of words to say, that the life of a nation may be suspended; thousands of its individual members may live to stem the tide of corruption, while society, as such, has lost its living soul—its principle of collective life and unity. But is it so with France? Such words are used by a Frenchman; and, in sober sadness, we think he had reason for uttering them. There is a wild fascination in the spectacle exhibited to the world by the people of France. Is there any intelligent will which molds and controls their actions? What is it? Whence these sudden starts of apparent life, stilled with equal suddenness in the slumber of death?—as if an alien spirit took possession of a lifeless body, animated it for a moment with convulsive life—the life of a maniac, exceeding fierce, so that none could pass

by that way—and then departed, and left it to its death. The terrible shock of the Revolution might well seem to a Frenchman to have destroyed the unity of national character and national life, and to have resolved the nation into its primitive elements. Its powers since then have often been *combined*; have they ever been *united*? It requires to be remolded into one organized whole; each separate atom must be brought within the influence of some common center of action, and animated by some common spirit—not, as at present, of destructive, but of constructive power—before the name of nation can again be rightly applied to it.

But only from within can a nation's salvation come. External means can avail nothing. The strong hand of mere power is worse than useless; it may bind in chains and fetters, and may sometimes succeed in restraining the gusts of frenzy; but it never can give the inner coherence, which is the first condition of corporate life. But if a living spirit—not an alien, but the breath of Him who made it—begins to stir within the body, may not the quickening words, "Arise, and live," be heard, low and gentle at first, a still small whisper, only to be heard by those who listen well, but gathering strength, and speaking in louder and louder tones, till the whole body rises at last and comes forth to a calm and genuine life? The beginning of such a life cometh not with observation. It will pervade the whole body at last; but it moveth all things quietly. If here and there we can discern a cluster of men, thoughtful but active, in sympathy and union with one another, bent not upon self-aggrandizement, but self-sacrifice, men who make it their one object to diffuse around them the life which they feel stirring in themselves—then life is visibly at work; and be it ever remembered, that life is stronger than death. Such men will have a solitary task to perform. Few will understand them; very few will sympathize with them. They must have keen insight to perceive their country's want, and an undoubting faith and an iron will to deliver her in spite of herself. They require a power which can triumph not only over external hindrances, but also over their own weakness and wavering; for many attempts will fail, many mistakes and blunders will probably be made by themselves, before the right path is found. But if the task be solitary, it is a noble one; and

whoever enters upon it in purity of heart, is following the footsteps of the Son of man.

We may hope that in France there are many hearts that beat high with aspirations such as these. Some there certainly are; and the two books, whose names we have placed at the head of this article, are full of this noble yearning. Their author, the Abbé Gabriel, is a Frenchman, and a priest of the Roman Catholic Church. We need not be startled at this. Though he is a Frenchman, his politics are not explosive; though he is a Roman Catholic, the Papacy has, perhaps, more to fear from him than if he stood outside her communion. He is actuated by a spirit which has seldom or never been prominently exhibited in the French Church—a spirit full of deep reverence for the past, coupled with a genial hope for future progress—a determination to follow faithfully the guidance vouchsafed to himself, without despising the light which is shining upon the paths of others. The appearance of such men, and such books, is a proof that the movement, which is so plainly at work in this country, is not without its parallel abroad. There can hardly be a question, that the churches of Europe are passing through a time of transition. There is a “removing of those things which are shaken, that the things which can not be shaken may remain.” We are turning a corner in the road, and the prospect is already widening round us. The student of church history knows well, that there have been many such times before—times of doubt and peril—when men lived much and learned much in a small number of years. We need only mention such names as Athanasius, Augustine, Gregory the Great, St. Francis, and, above all, Luther, to show that the time of trial and sifting, which appears to await us now, can scarcely be more full of temptation and danger, than has been the lot of others before us. “The thoughts of men are widened with the process of the suns,” and never does the Church of God so completely prove the reality of her divine mission, as when she brings forth out of her treasure things new and old, and shows to each succeeding age that the revelation intrusted to her is large enough to answer its deepest questionings, and to offer a home to its sublimest and truest thoughts. And she that watereth is watered also herself. By so transforming the

spirit of the age, and answering its needs, she herself learns more of the many-sided wisdom of God, which is contained in the faith once delivered; and in this way growth is as much the law of her being as of any other human society.

There are signs of transition everywhere. There is a growing impatience of any forms which are felt to have lost the living spirit which once animated them. Men are straining after higher and freer life, which shall deliver them from the bonds in which they feel themselves bound, but which must itself be presented in some definite form, before it can vivify and quicken those who are hungering and thirsting to receive it. It is the old story, men must feel the famine before they can appreciate the food which is given to them. By and by they will learn that the bread of their Father's house had all along been sufficient for their needs. Meanwhile it is true, that, in some hasty spirits, impatience may lead to grievous error. Light in this world seldom fails to cast a shadow. There is always danger of a revolt against all restraint, and a mere assertion of self-will. But very different from this is the deep swelling life, which gives the real ground of hope for the future—the discontent with the present, which comes not so much from pride as from humility—the courageous glance into the future, which proceeds not from self-confidence, but from faith; and to those who are willing to look upon human life with a hopeful eye, this bright side is as visible as that dark shadow. The insurrection against falsehood may be temporarily mingled with a rebellion against all rule whatever; but its deepest foundations must be laid in an undying love of truth.

From a merely external point of view, the signs of change upon the Continent do not appear more striking now than they have often appeared before. Rome is not a prey to more terrible outward anarchy than she was when the contests of Orsini and Scotti deluged the city with blood, and when every city in the States of the Church was waging independent war with nearly every other. The state of the Popedom is nothing to what it was when the infamous Theodora held unlimited sway over the first bishopric of Christendom. The dependence of the Pope upon the French monarch is not what it was during the “Babylonish captivi-

ty" of the fourteenth century. Those awful times, no doubt, came not without a cause, and ended not without bearing their fruit. They were a scandal to the world, and good men mourned over them, and had rejoiced; and illustrious names are handed down to us of men who nobly labored to stem the tide of corruption. But we miss in them the signs of steadfast and general determination that these things should be so no longer. Men mourned, and hoped, and feared, but they did not in a body resolve. There were but few who dared to resist the hierarchical system of the time, and these few drew the sword with irresolute wavering, and a secret fear that they might haply be found fighting against God. The spell of the Papacy had not yet lost its hold upon the minds of men, for it had not yet done its work. But men became gradually conscious that the spell was broken; and probably the nearest parallel to the present state of things would be found in the period when men began to act on this consciousness, without, as yet, distinctly perceiving whither they went. The century preceding the Reformation presents more than one point of similarity with our own; that century, which includes within its limits the "Reforming Councils" of Pisa, Constance, and Basle, and, in its later half especially, the deep and strong popular movement in Germany, which made itself so signally felt in the reign of Maximilian, and which must have had such great influence in forming the character of Luther. Then the heart of Christendom was awake, and its thoughts found expression in the only form which was natural to the time. But *now* the human *will* has been called into fierce activity by the French Revolution, and the events which followed it. Were a Luther to arise now, and wake the slumbering faith which should guide and sustain that will, who can calculate what might be the result? What a vigorous return might be expected to the sources of ancient truth! The strong demands of the age must wake a response from the Church. She must look again into her treasure-house, and, unless her divine mission has ceased, she can and will satisfy the needs of this generation as of those which have gone before it. In this island, the demand has been made loudly and long. It has been felt, that if the Church is to have any real power over the

minds of men, she must command it, not by external authority, but by the force of her own royal dignity. She must prove her mission, not by talking of it, but by exercising it; her power of healing, not by praising her medicines, but by giving health to the sick.

And a like demand is made upon the Church in France; but it is made in a different manner, and a different answer must be given to it: for, in the strict and true sense of the words, there never yet has existed a *French National Church*. As compared with other nations of the Continent, the French have indeed, for many centuries, been especially jealous of the liberties of their Church as against the Popes. During the whole history of the Papal power, scarcely any country has given the Popes so much trouble as France. No people has put forth so many claims to special privileges, none has preferred so frequent demands for exemption from burdens which others were bearing, as the French. The contest between the Popes and the German Emperors is no exception to this statement. It was long and deadly, but it rested on grounds peculiarly sublime, and, so far as the Continent was concerned, peculiarly its own. The Emperor represented the majesty of the State, as distinguished from that of the Church; and only by the contest of these opposites could men learn the true significance of each, and the deep unity which lies beneath them both. The contest sprang, not from the passions of individuals, though these might furnish the particular occasion of the moment, but from the instincts of human nature, which must eventually show themselves, however much they may be restrained for a time. But the battles between the Popes and the Kings of France were fought on a far lower level. In reading their history, we can not help feeling the misgiving, that if the immediate occasion had not roused the conflict, it would never have existed at all. They were not the result of a deep and enduring national character, which must of necessity find an utterance somewhere—which is discernible in the whole history of the nation, and is here and there especially conspicuous, only because here and there some especial cause may have called it into more visible activity. Not such was the cause of nearly all the disputes of which we hear, but rather the particular, and often petty injury of the time—the affront just offered to the



national vanity; the refusal of some special privilege, to which the "grande nation" thought itself entitled; the mortification of seeing some other sovereign more highly honored or favored than him of France. These, and such as these, were the grievances which roused the French people; of a resistance offered to the Pope by the French Church as such, of a defense of those truths which lay at the root of her existence, we hear almost nothing. The Church was *in* France, but not *of* France. It had not been formed by steady and legitimate growth out of the body of the people, and it was no true reflection of the national character.

In very early times, when the nation was as yet unborn; when new hordes of barbarous invaders were incessantly sweeping over the country; when government had no existence, and manners and language did not continue the same for a month together—the clergy were the only fixed nucleus of society; and that clergy was necessarily foreign, almost exclusively Italian, and resting upon Italy for their support. Hence their intercourse with the Roman Church, which, before the barbarous invasion, had been infrequent, often cold, and sometimes hostile, now became both friendly and close. In such a state of society, or rather in a country such as this, where society did not exist, it seemed impossible for the clergy to adapt themselves to the thoughts and feelings of the ever-shifting myriads whom they were laboring to Christianize. Their work was with individuals, rather than with a nation. It was well if they could maintain their footing amid the waves; and when more settled times came, their work also would become more settled and more hopeful. Hence they were more and more thrown inward upon themselves. Their habits of mind belonged to the country from which they drew their origin, not to that in which they were dwelling. And when at last the tribes which had overrun the country coalesced into something like a nation, with a national character, and national will, the Church had already crystallized into a Latin communion. The hierarchy was Latin in spirit, though not invariably by birth—its institutions were Latin—its thoughts were Latin—its language, both of literature and worship, was Latin. A Church had been transplanted into a nation, not a nation transfigured into a Church. And as it began,

so in very great measure it has ever since remained. The share which it had in the reorganization of Charlemagne did nothing to alter its character in this respect: it continued nearly the same throughout the contests of the succeeding centuries; and the Church of France has never yet been truly French.

And as it has not been itself an embodiment of the national life, it has failed to represent some of the deepest and most characteristic national feelings and impulses. At any period when the life of the nation was deeply stirred, this want of sympathy became very manifest. A part of the national mind was seen to possess but a doubtful home in the Church, and sometimes was driven to seek one elsewhere. And while this is apparent in the earlier history of the French Church, it is naturally much more so since the period of the Reformation. Among the hidden things which that great dawn revealed, and among the hidden powers which it woke into activity, one of the most conspicuous and most important was the sense of distinct national life. A revelation was then made to Christendom which was far from being unfelt, even in those countries where the religious teaching of the Reformers was rejected. Each people began to be more conscious than before of its own characteristic peculiarities, which constituted both its strength and its weakness; and thoughts and aspirations which at any earlier period would have lain dormant in the individual breast, and have had but a slight influence upon the character, became now the moving principles of external life. The Church as it then stood could offer no resting-place to these thoughts and aspirations; and this must never be forgotten among the other causes which produced the demand for reformation. That demand was strong and imperious, in proportion not only to the depth of conviction and earnestness of purpose of those who made it, but also to the strength of the hold which the National Church had gained upon the minds of the people. Hence in England the reformation of the National Church, though begun by an arbitrary sovereign, was in the end accomplished by a sustained exertion of the national will. In France, where the ecclesiastical establishment was less identified with the people, and where men, in consequence, felt themselves less

personally interested in it, the stirring of the national life took a direction which only partially touched the Church. Its main force was spent elsewhere; and when it took a religious form, the result was rather a demand for the freedom of individual worship, than for a reformation of the National Church. Until 1685 a large measure of religious freedom was conceded to the Huguenots, but no change took place in the establishment; and after the revocation of the Edict of Nantes, the non-conforming Protestants were no longer allowed to exist in the country. But meanwhile a contest was raging within the established communion—a contest waged by violence on the one side, and passive endurance and heroic courage on the other. Jansenius had published his *Augustinus*, and had lately been gathered to his fathers. It was the age of Pascal and the Arnauld family, of Fénelon and Madame Guyon. Those heroic Christian women, the Mère Angélique, and her sister, and her niece, had made their Abbey of Port Royal the light of Europe. Christendom was filled with the fame of its learning and its piety. If it had been allowed to remain, and its influence still to be exerted directly upon the people, who can tell what might have been the result? If the spirit of Port Royal had been allowed to spread, and had become the ruling spirit of the hierarchy, the French Church might at last have become French indeed, and, in becoming national, might have become a true and faithful witness of God to the nation. But it was not to be. By a sure instinct, the Jesuits perceived that between them and the Port Royalists there must be war to the death. The two principles which animated them were as contrary to one another as light and darkness; and the executive power of the nation was wielded by the most anti-national of sects, to crush out the living spirit which had begun to show itself in such a glorious form. Port Royal was destroyed, and its holy inhabitants dispersed. We may blame Madame de Maintenon, we may blame Cardinal Noailles, we may blame Louis XIV.; and certainly that cruel persecution is a most foul and hideous blot upon the memory of them all—a blot which not all the tears and remorse of the amiable but miserably feeble Cardinal can wipe from the remembrance of his name. But, whatever may be our feelings toward the perpetrators of the

evil deed, we can not fail to perceive that the suppression of Port Royal resulted necessarily from the very nature of the Church of France. It was impossible that the latter should exist as it had hitherto existed, if it did not destroy the former, or mold it into its own likeness; the stronger of the two must needs seize the opportunity, while it remained, of crushing its opponent. Great and glorious was the history, and still more glorious was the end, of Port Royal; and great, no doubt, was its influence upon the French people; but the Church of France remained unchanged. She did all that earthly might could accomplish to extinguish the light which was in her. She cut off, as a diseased limb, the one sound portion of her body which was giving health to the rest. And by her own grievous fault it has come to pass that deep and earnest minds have been repelled not merely from herself, but from Christianity altogether; that they have connected faith in the Son of God, sometimes with a doubtful honesty, sometimes with a shallow intellect; and, in their flight from sectarian bigotry, have been led on to deny the very existence of a Church of God on earth.

The Huguenots were banished at the revocation of the Edict of Nantes in 1685; Port Royal was finally suppressed in 1709; and the French Church entered in apparent triumph upon the barren wilderness of the eighteenth century. That dreary waste—in which Christendom seemed determined to forget that there is a God, or any resurrection, or angel, or spirit, and, except for the voice of John Wesley, had, in this country at least, nearly succeeded in doing so—was her preparation for the terrible convulsion with which the century closed. And then was exhibited that spectacle without parallel in the history of the world—that spectacle which proved how deadly had been the superficial attacks of Voltaire and his followers upon a faith as superficial as themselves. The witnesses for the living God bowed down and worshipped the beast. Christian bishops came forward to proclaim that their preaching had been hypocrisy, their sacraments a deception, their religion a lie. The Church of France committed suicide in the face of the nation. Having turned the Christian Gospel into a system of ceremonies and dogmas, she now, without a blush, threw those ceremonies and dogmas aside, and preached for her Gospel what she said in her

heart, There is no God. And the nation, which had listened coldly to her former message, was now only too willing to take her at her word. The Church, which had no longer a message to deliver, sank into nothingness. In corners out of sight there lingered still the ancient faith that man is nobler than the beasts that perish, and partakes of the image of Him who made him; but the cry of the nation in the throes of its dissolution only echoed that of the Church, There is no God. Since then, where has been the French Church? where has been the French nation? Church organization was indeed restored by the first Napoleon—bishops and clergy again appeared, and the Christian religion was again professed by the State; but in no true sense can Napoleon be said to have restored the National Church. To do this lies beyond the power of emperors or legislative councils. It can come only from the deep longings of the heart of the nation, recognizing the message of the Christian Church, and finding their satisfaction therein. These longings and aspirations were not then awake. This recognition had not then taken place. The Church of Napoleon might show seeming signs of life—just as a dead body may by galvanism be made to move its limbs—but there was no life in it. It was a patch placed upon the sores of the nation, which could scarcely hide, and was utterly powerless to heal, the wound. With the returning monarchy of Louis XVIII. came still greater respect for the Church. But what was that monarchy itself? Where was the French nation? Frenchmen there were, but where was the bond which constituted them a nation? The living soul which had animated their fathers, and, spite of all their differences, had made and kept them one by virtue of its own unity, was gone. Political institutions had been artificially revived, but the organized body was no longer living. The nation as well as the Church had been buried out of sight. The occupant of the phantom throne might stretch out his hands to embrace the phantom Church, but a union of phantoms can not satisfy the cravings of the heart of man. A resurrection from the dead was needed, if a French nation and a French Church were again to be seen in the world.

And all this was the direct result of causes which had assumed a definite shape at least as early as the reign of Louis XIV. Under him the Church had practically re-

nounced all claim to be called national or truly catholic. She worshiped the word Catholic more loudly than ever, but all true catholicity was gone. Alien in spirit from the people, and narrow in her foundations, her fall was only a question of time; and from that fall she has never yet risen. The number of hearty members of the Established Church is at this moment extremely small. With the exception of the Protestants, whose number, as compared with that of the Roman Catholics, is very inconsiderable, and who are themselves divided into several different sects, the rest of the community may be distinguished under four different classes: First, *avowed unbelievers*. These include a most formidable proportion of the talent and intellectual power of the country, as well as the uneducated masses. Secondly, those who, for want of a better name, may be called *Political Churchmen*—men who, without any distinct recognition of Catholic teaching, still less with any firm belief of its truth, yet call themselves Churchmen, and uphold the Church from fear of a revolution. They hope, by means of its promises and threats, and its eternal sanctions, to curb the restlessness of the lower orders. They look upon the influence of the Church as upon that of the gendarme, differing only in the fact that her eyes are in every place. Thirdly, a smaller number, who are simply superstitious. They have a dim and vague terror of the world unseen, and of the Church as wielding the powers thereof; but of hearty and intelligent faith in her teaching, or affection for herself, they have none. Lastly there are a few, almost lost in the crowd, who, with earnest but saddened hearts, hoping against hope, are struggling with every kind of difficulty, and amid all discouragement, to bring their fellow-countrymen back to God. From this last number must arise every hope for the future of the French Church. Some of them are distinguished by their talents, some by their piety, some by both; and, in a disorganized state of society, such men as these may form a nucleus from which a new life may diffuse itself. Some of their leaders have indeed begun to labor for the regeneration of society with a zeal and activity which are cheering to notice. They address themselves to the rich and educated by their writings, to the poor and ignorant by their sermons, and they have lately begun to clothe their thoughts in the form of philosophy. Such a move-

ment, though in itself inconsiderable, and in some respects, it may be, defective, and even erroneous, may yet be gladly received as a pledge that there is still life in the French people. If such men are able to awake in the people of France a consciousness of their higher needs; if they succeed in persuading the more educated portion of society that a denial of the Christian revelation is not a necessary accompaniment of talent; if they can show to those who fancy themselves to be seeking after wisdom, that the problems of philosophy are not darkened but illumined by the Gospel, and to those who require a sign, that there is rest unto their souls in the word of God, they will have sown a seed, or rather proved themselves to be the seed, of a living organism which may ramify through the whole country, restore to the French people their lost unity as a nation, and be the germ of a Church in the best sense National. For this work they have at least one essential qualification—they believe in their mission. As ministers of the Church, they believe that they have a message to deliver, and they are determined honestly to deliver it. They believe that in that message lies their strength. It, not they, must change the face of society, if it is to be changed at all.

One of them, whose name is perhaps the best known in England, is the Abbé Bautain. He is a Professor at the Sorbonne, and in pulpit eloquence has hardly a rival in France. His sermons never fail to attract crowds of attentive listeners. To be a fluent talker is not difficult, but to be an orator a man must have something noble to say, and must be able to say it nobly; and M. Bautain is an orator. No one can read even his little work on the *Art of Extempore Speaking*, which has been translated into English, without perceiving that he is a man of remarkable powers. How different from the easy self-confidence of some of our popular preachers are such words as these: "Woe to him who experiences no fear before speaking in public. It shows him to be unconscious of the importance of the function which he is about to discharge, that he does not understand what truth is, whose apostle he himself should be, or that he little cares, and is not animated by that sacred fire which comes down from heaven to burn in the soul." "In the pulpit one feels the full weight of responsibility before God. All men who have had experience in public speaking,

and who have ever themselves been eloquent, know how much they have owed to the inspiration of the moment, and to that mysterious power who gives it. It is precisely because a man may have sometimes received this efficacy from above, rendering him superior to himself, that he dreads being reduced to his own strength in that critical situation, and so to prove beneath the task which he has to accomplish." One who can heartily utter words like these has a mission which is not likely to be neglected. In this self-despair, joined with confidence in a Power above one's self, lies the genuine strength of manhood.

Another great name is that of the Abbé Gabriel, the author of the *Principes Généraux d'une Théodicée Pratique*. He is deeply conscious that the French Church has fallen short of her mission because she has kept herself aloof, and refused to sympathize with the instincts of the people. They have striven after intellectual power, and she has not made them feel how intellectual power may be ennobled and sanctified. They have cried out for liberty, equality, and fraternity, and she has not taught them the truth of which those notions are the burlesque, and in which they find their correction. Some of them have been fascinated by philosophy, and have sought eagerly after the hid treasure which they feel to be shadowed forth by this visible world, and to belong to the world unseen, and she has been suspicious of their efforts, and forgotten that she had power and commandment to make known to them the wisdom of God. To correct these things, and to make men feel that Christian truth is no shallow superstition, but is deeper than the deepest reach of human thought; to make them perceive that divine revelation is not a check upon scientific inquiry, but is its greatest incentive; that theology is the mistress of all sciences only because she is the mother of all, because "she comprehends the age, though the age can never comprehend her"—to do this is the work to which the noblest spirits in France are addressing themselves; and the part of it to which M. Gabriel feels himself especially called, is to reconcile men's thoughts upon religion and philosophy, and to show how, in their different sphere, these two opposites are essentially at one. In the work just named he endeavors to give an impetus to both, to rouse in men's minds the desire to know God, and also the de-



sire to seek after wisdom, in order that he may lead them to see that God and wisdom are one, and that "he is not far from every one of them." Far from being jealous of philosophy, he would encourage it to the utmost, knowing that it is intended by Him from whom all good things do come, to be the handmaid of true religion, and that the skepticism which destroys the one is equally fatal to the other. To answer the question, What is truth? asked, as it is, sometimes in despair, sometimes in scorn, sometimes in sadness, is M. Gabriel's high ambition. Victor Cousin tried to do it, but it ended in disappointment. Auguste Comte tried to do it, but the positive philosophy has not proved to be a gospel to the world. M. Gabriel tries to do it, but his method is different from both the former. He calls it a *Théodicée Pratique*. To construct a *Théodicée*—to justify the ways of God to man—how often has this been tried; what windy and fanciful speculations have resulted from the attempt; what dreary, unsubstantial commonplaces have been put forth with this object! All the wildest vagaries of the blind leading the blind have been mixed up with it. Over and over again have men's conceptions of the ways of God proved to be but shadows cast by their own unrighteousness and caprice. M. Gabriel has one safeguard, which is by no means peculiarly his own, but to which he clings with a pure intention. He does not attempt to evolve the idea of God out of his own consciousness, because he believes that God has revealed himself in the person of his Son. He accepts the statement that the mystery hid from the foundation of the world has been revealed in Christ. The incarnation, earthly life and death of the Son of God, furnish the key by which the riddle of the universe is to be unlocked. But if that key is to be used, if that riddle of life is to be actually expounded to living, suffering men, it must be by a *Théodicée "pratique."* Men must learn to know the truth by obediently giving themselves up to Him who *is* the truth. With this safe conduct, M. Gabriel endeavors to climb the dizzy heights of metaphysics—not indeed fancying that he has any infallible security against mistakes, but in the sure confidence that if he is allowed to fall, there is One who will raise him up. He can dare to dwell on doubts, for he believes that He who made the dark-

ness as well as the light reveals himself in the perplexities of the human spirit, and will make all clear at last.

In philosophy he is not ashamed to confess that he owes a deep debt to Hegel, and he takes for the basis of his system the Hegelian principle of the "Identity of Contraries." But what a different form does this principle assume in his hands! Hegel's great proclamation was, that "Being and Non-Being are the same." He chases the objects of his consciousness into a region of such thin abstraction, that he can discover no difference between them, for they have both vanished, and then he exultingly pronounces them identical. Being in the abstract, apart from any one being, is nothing. Of course it is. In absolute unconditional light, light without color or shadow, our eyes would be of no use to us—there would be complete obscurity. Therefore, absolute light is the same as absolute darkness. If this is philosophy, we can not wonder at Hegel's statement, so often quoted against him, that philosophy has nothing to do with the interests of mankind. It would be hard indeed for mankind to find nourishment in such vapor as this. Taking his understanding—"the faculty judging according to sense"—for a guide, Hegel has followed it to the utmost bounds of its dominion; and when he tries to look across the frontier, all is monotonous, vacant "identity," for the understanding "can not discern" the things which lie beyond. But is there any thing in man which does not "judge according to sense"? Can the spirit of a man which is in him "discern spiritual things" in all their distinctness and in all their unity? M. Gabriel thinks it can. Well may he call himself a *free* disciple of Hegel. Free indeed: so free, that we question whether the so-called master would acknowledge the relationship. By virtue of this freedom, his *Théodicée* is "*pratique*." By virtue of this freedom, he can hope to preach a gospel. By virtue of this freedom, he can burst the bonds of others.

That "spirit and matter form no true dualism," is a truth proclaimed to faith by the incarnation and resurrection; but it received a very tardy recognition from philosophy. M. Gabriel takes this truth, and traces it through the universe. Things unseen and things seen—Faith and Reason—Church and State—are opposite, indeed, but never can be contradictory to

one another. They are the opposite poles of God's revelation of himself. We see now one, now the other, according to our own varying position; but there neither is nor can be any contradiction between them. They are the facts upon which this visible world is built. Their identity is as true as that of Divine Love and Divine Wrath, Divine Justice and Divine Redemption. The highest and most significant instance of this identity is man. Man is a microcosm, the meeting-point of the two worlds, the identity of both. To which of the two does he properly belong? Is he a spirit? Is he a body? Is he natural? Is he supernatural? He seems to be both: now one, now the other. He is neither: not a spirit as God is spirit, not a body as the creatures around him. He is spirit-body, supernatural-natural, unseen-seen. Corresponding to this position of man in the universe is the intellectual conception of the indefinite. The indefinite is not infinite—it has a limit; but the limit is perpetually receding; follow it on and on, and you will never reach it—it is always just out of sight. And so in the world, not of conception but of existence, man is incessantly beating against the bars of his cage, always straining after something just beyond his reach; and when he has reached it, straining further still. The poet pursues his ideal truth and loveliness, the artist his ideal beauty, the philosopher his ideal wisdom. Is there no ideal of *man*? no eternal righteousness, truth, and love—"not our higher self, but a higher than we"—which haunts us all, the worst of us as much as the best, the ignorant no less than the scholar? Is there not a heavenward attraction which is ever tending to draw us upward, an original righteousness to which we can yield if we will, and be delivered from our original sin? The sense of want in man is heavenly in its origin—it is intended to lead him to God for its satisfaction. The upward call is, indeed, God's own voice in the soul drawing man to himself. And he never ceases to speak. "In goodness, in truth, in beauty, in every thing where there is the shadow of any limit whatever, there is not the absolute perfection which man desires." "This idea of infinite perfection, toward which man aspires with all the powers of his being, is the voice, the very word of God within him, the attraction of his love upon our soul, the impress of his thought upon our intellect, the living breath of his

Spirit upon our spirit; in a word, it is himself present within us, quickening us with his life."

But free-will remains untouched.

"Man is not the less free to obey this persuasive and delightful voice of God which calls him to infinite perfection, or to close the ears of his soul, and listen only to the world. He remains none the less free to follow this attraction of divine love, which solicits without compulsion, or to prefer the love of himself, the attraction of his own pride and of his carnal mind. But, whatever be the voice which in his freedom he chooses to obey, the idea of perfection remains none the less fixed in the deepest roots of his being. For even in his worst wanderings it is still infinity that he is seeking where it is not to be found—an infinity of sensuality and of pride—an infinity of earthly and material happiness; so that each one of his disappointments is an additional voice of nature and the finite world, crying to him, I am not what thou seekest; return to God, for thou canst never find thy rest but in the Infinite, and he alone can satisfy thee; if love can not teach thee thy true way to life, learn it then by the misery of thy falls."

And so human life would seem to be an education! But who is the educator? How do we know that he exists? All this points to God. This eager straining after perfection, this "*amour de l'infini*," is the real proof of his existence. It *can* not be intellectually proved, for it is above the sphere of the intellect; but the light that lighteth every man that cometh into the world reveals it.

"We can not demonstrate God; it is God who demonstrates every thing within us, and without us, by the sense of perfection which he has given us. This is his word shining in our souls, and giving us the consciousness both of ourselves and of the world, and also of God, in whom we live, and move, and have our being." "The perceptions of our spiritual sense can no more be proved true than those of our bodily sense. The former, like the latter, are incapable of demonstration; they make themselves felt by love—the love of visible things giving us the consciousness of their reality, by their substance akin to our own, as the love of God, and of things invisible, gives us the consciousness of their reality, by their actual life within us."

The same love which teaches us that God is, impels us to approach him. It produces a constant discontent, not with our present possessions or our present happiness, but with our present self, and with the words and actions by which that present self is embodied and manifested to the external world. As the constant antagonistic

play of life and death maintains the existence of our material body, as incessant death and incessant renewal is the law of its every atom, life *is* death, and death *is* life; so with the body of word and action. It must be ever tending to become a glorified body. Old habits must be thrown aside, new ones developed—the old man put off, the new man put on. Life should be one unceasing sacrifice of self, that the man may be conformed to the image of his Maker. By self-sacrifice he approaches nearer and nearer to God, and loses himself in God. Not that we have here any dreary pantheistic absorption into the Divine Essence. Man can never become God, or part of God, but he may through eternity become more and more like him. And how? By the power of Christ in man, the hope of glory, dwelling in each one of those who have been made in his image, dwelling once visibly on earth, to reveal to us the fullness of the Godhead bodily.

Here is a passage in which M. Gabriel speaks of the divine work of redemption:

"Yea, saith God, I will do even more. I myself, in the Person of my Word, will take human nature upon me. I will become man. I have given all to man, all, even the power of rejecting me. I will even give myself at last, in my Son, a sacrifice upon the cross, to the most painful passion, to the most shameful death, that men may learn to give themselves up to me and to one another; that so I may impress upon their hearts the love of God, that creative power by which they may become partakers of my nature, and partakers also of my eternal bliss."

We think we have shown that there is much to be learned from this book, but we must also say honestly that we look in it in vain for much which we should wish to find. There is very great truth in M. Gabriel's view of self-sacrifice, but he does not help us to see the "exceeding sinfulness of sin;" we can catch but a faint glimpse of the glory of the Lamb slain from the foundation of the world. A Christian *Théodicée* must be very defective that does not more clearly recognize the deep disease of our nature and the power of the Divine Healer. It should make us see, as in a glass, the evil of sin, and the love which takes away the sin of the world. But over this subject there hangs, in the *Théodicée Pratique*, a shadowy vagueness which is not satisfactory.

Love, according to M. Gabriel, is the source of all knowledge. By loving God we learn to know more and more of the

things of God. But in this the assistance of revelation is necessary. And revelation he takes in a wide sense. It embraces, 1st, The creation; 2d, The sense of perfection in the soul; 3d, Knowledge given in paradise; 4th, The complete revelation in Christ recorded for us in the sacred Scriptures, and handed down in the Church. All these are distinct means by which the word enlightens the world, and they must be received in conjunction as one whole. Not that M. Gabriel would place these four sources of revelation on an equality with one another, or assign to them a co-ordinate authority. The heavens and the earth may indeed declare the glory of God, and the hungry longings of man's soul may lead him to seek after infinite perfection, and dim memories may still remain of the knowledge which our first parents forfeited in Paradise; but it is, after all, only in a secondary sense that the high title of revelation can be given to these three sources of knowledge, and M. Gabriel, if we understand him rightly, would not deny that the true knowledge of the glory of God can only be attained by gazing upon the face of Jesus Christ, as shown to us by the Scriptures.

We have said enough to justify our notice of this remarkable book. It is not on account of M. Gabriel's particular creed or particular philosophy, that attention has been drawn to his name. His book may perish, the scheme which it puts forth may be rejected, this particular movement may come to naught. We have taken his writings for our text, in order to show the moral and religious attitude which is assumed by some of the most active of the clergy of France. If we anywhere can trace a few earnest minds asking for the truth, the sight is a cheering one, though they may not as yet seem to be very near attaining what they seek, and though they themselves as individuals may fall by the way, and never in this world attain it at all. When men are struggling from darkness into light, we must expect them now and then to wander from their course; but that they are struggling at all is a ground of glorious hope. We may certainly look upon M. Gabriel, and others like him, as, to some extent, representative men. They show us something of the hidden influences which are at work beneath the surface of society, and of which the newspapers tell us nothing. They show us that

in the religious darkness all are not sleeping. Others, too, are feeling their way, perhaps in different, it may be opposite directions, yet still seeking at least the light; and we know that the light can not be truly and earnestly sought in vain. Meanwhile there is a special hope for the labors of such men as M. Gabriel and M. Bautain; for they appear honestly to labor to point to the way, the truth, and the life. France is weary of theories, and their

thoughts are essentially practical. She turns a deaf ear to the mere assertion of dogmas, and their unceasing effort is to show that in the commandment is life. She dreams of equality and fraternity, and they tell the philosopher and the wayfarer of a brotherhood in which all are members in the incarnate Son. Lastly, she pants after progress, and progress is one of their distinctive marks—they cheer her on to an infinite goal.

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## THE LATTER YEARS OF WILLIAM PITT.\*

EARL STANHOPE's first two volumes, reviewed by us some months ago, brought the life of his great hero down to the latter end of 1796, the fourth year of the French war. At that time, England was suffering under the weight of gloom caused by two years of bad harvests and unsuccessful warfare. At home, the lack of food and the ever-growing taxation heightened the political ferment born of past misrule and passing changes in the neighboring states. Abroad, our fleets maintained their old renown, but our armies knew more of defeat than victory under a general of his Majesty's choosing, and our allies made no good use of the moneys supplied them from the British Treasury. On the Russian throne there sat an emperor in whose good-will no trust could ever be placed. Holland had thrown herself into the arms of France. Ireland was rife with plots and tokens of coming storm.

Just at this juncture, Pitt reveled in a dream of happiness, as sweet for the moment as it proved barren of outward fruit. In his leisure days at Holwood, he had learned to love the eldest daughter of his friend, Lord Auckland, whose house at Beckenham stood not far from his own. But the lover's poverty forced him to give up all hope of marrying a young lady

whose own lack of fortune seemed, in her father's eyes, sufficient reason for accepting a plea which many a less prudent father would have been proud to waive for the sake of him who here offered it. Looking at what might befall his child in the event of Pitt's dying or losing his place, his lordship agreed with his friend in thinking it best that the affair should go no further. What the lady herself thought or felt about it we are not told; but for that present Holwood and Beckenham became as distant as they had ere-while been near. His lordship and Pitt remained friends; the latter set himself to bear his burden as he best could; and two years after Miss Eden gave her hand to Lord Hobart, afterward Earl of Buckinghamshire. Whatever Pitt may have suffered, he was not the man to fall into a wild despair. And another burden was on him, which just then must have given his thoughts a welcome diversion. There was no time for love-sickness when the ship of Government needed a bold and watchful pilot at the helm. Throughout the whole of 1797 England's fate continually hung in a balance, which something more than human statesmanship kept from turning to the wrong side. Bad weather and a difficult coast baffled the efforts of Gen. Hoche to effect a landing in Ireland, after his fleet had slipped past the British cruisers watching for him off the coast of

\* *Life of William Pitt.* By EARL STANHOPE. Vols. 3 and 4. London: Murray. 1862.



Brittany. But in February, there landed in Fishguard Bay a body of twelve hundred blackguards, the sweepings of French prisons and galleys, sent forth with a commission to take Bristol, and burn it to the ground. This noble scheme of just vengeance, as it appeared to Wolfe Tone, and other of the Irish rebels, was, happily, crushed betimes by the appearance on the coast of several hundred volunteers and militia, besides a pretty good muster of Pembrokeshire countryfolk, armed with their own tools, and such weapons as they could on the moment find. Misliking the state of things in front, and mistaking, it is said, the red cloaks of the Welshwomen for the red coats of British infantry, the "Black Legion" surrendered at discretion, without a blow. A yet worse danger was turned aside by the happy daring of Sir John Jervis, who, with his small fleet of fifteen ships, part of them led by Commodore Nelson, broke through the Spanish line of twenty-five, and gained the victory, for which Nelson was knighted, and Jervis made an earl. Driven out of Italy by the resistless Gen. Bonaparte, her very capital lying at his mercy, Austria found herself, by the middle of April, fain to accept of a peace, which gave her conqueror Belgium and the left bank of the Rhine. About the same time, Pitt was carrying through Parliament a bill confirming the famous Order in Council of February, by which the Bank of England had been allowed to suspend its payments in cash. So bold a measure for stopping a drain of gold, which else, in all likelihood, must have ended in a national bankruptcy, had, of course, its fierce opponents in the party of Fox; but the need of the moment brooked no delay; the moneyed men of London were all on Pitt's side; and the party of Fox had no chance whatever against a minister strong at once in his parliamentary following, and in the moral support of his countrymen out of doors. The bill was to have force for only a few months; but so well did it seem to work, and so ready were the people of England to do whatever was deemed best for the ultimate good of all, that its renewal from time to time became a thing of course while the war lasted.

Before this measure had become law, our Austrian ally had left us in the lurch, and a mutiny had broken out among our own seamen at Spithead. So well was it planned, so firmly yet temperately carried

on, and so just were the men's demands, that the Government yielded with a good grace; and, after one or two hitches, caused partly by the bad taste of certain officers, partly by the men's deep-rooted distrust of the Admiralty, a royal pardon for the mutineers, accompanied by a bill for increasing the seamen's pay and allowances, won them back to the allegiance, which, indeed, they had never in their hearts forsworn. In one of the ships there had been some talk of downright desertion to the enemy; but the sailors' delegates at once took the most determined steps to show their abhorrence of language so rarely heard among British seamen. What happened at Portsmouth and St. Helen's, however, became the signal for a yet more dangerous mutiny at Sheerness. While Lord Bridport's fleet was weighing anchor for a cruise off the Breton coast, Richard Parker, the ringleader at Sheerness, was sending out to the Admiralty, from the fleet he had taken down to the Nore, demands so extravagant and so imperiously worded, that no Government worthy of the name would stoop to yield them, were the peril never so great. From the ships, the mutinous spirit had found its way among the artillerymen at Woolwich, and the invalids at Sheerness. Brave old Admiral Duncan, who was blockading the Dutch ports, one morning found himself forsaken by all his ships but two, and only by making false signals, prevented the enemy from taking advantage of his isolation. The English funds fell down to forty-eight, the lowest at which they had ever been quoted. It was an anxious time for the bravest, but Pitt's courage never failed, and Sheridan's bold counsels fell on willing ears. Offers of pardon having failed to check the mutiny, it was resolved to put it down by force. Some faithful ships were still at hand; troops were sent down both banks of the Thames; gunboats were got ready, and no trouble was found in manning them. The King himself called on his Parliament for strong measures against the mutineers. A timely boldness on one side and a growing sense of shame for past wrong-doing on the other, conspired to save England from the worst danger she had yet encountered through all that century. Wearied of the tyranny enforced by their new commanders, solemnly reproached for their disloyalty by the fleets at Plymouth and Spithead, disheartened by the movements going on

around them, and the evident lack of sympathy with their cause on shore, ship's crew after ship's crew returned to their duty, until, on the thirteenth June, Parker's own vessel, the *Sandwich*, was brought under the land-batteries by the last remaining body of mutineers. Once more Admiral Duncan blockaded the Texel with a force which needed no help from human cunning, and on the thirtieth of June, Parker himself, from the yard-arm of his own ship, underwent the doom he seems to have richly deserved.

That during these troublous weeks Pitt maintained his wonted coolness and proud self-reliance, while the minds of weaker men were failing them for fear, we may well believe without seeing, for our part, any sure proof thereof in the story told by Lord Stanhope, of Pitt's being once found fast asleep a few minutes after one of his colleagues had brought him news of very serious import. A man of weak health, tired out with a hard day's work, and heavy, perhaps, with strong wine taken to recruit his jaded powers, would have shown himself unusually wanting either in common-sense or calm self-control, if he had refrained from resuming his slumber when no special good could come of his keeping awake.

About three weeks after the quelling of the mutiny died Edmund Burke, having lived just long enough to see England brought safely out of a perilous strait, and the leaders of his old party deserting their post of duty in the House of Commons. His last political effort, while he lay ill at Bath, had been the advising Government, through his friend Windham, to make no compromise with the Spithead mutineers. Luckily for the nation, advice so intemperate did not prevail, else the dying statesman might really have lived to see, in his own words, "an end of all that is worth living for in this world." Happily, on the other hand, for the veteran Irishman, he escaped the sorrow of living among the sad events which blood-stained the history of Ireland during the following year.

In the same month of July, we find Pitt backing his friend Wilberforce's efforts to gain for Roman Catholics the right of entering the militia. Carried through the Commons, this just and wise measure was thrown out by the Lords; the head of the Foreign Office, Lord Grenville, having deeply angered his friend

and colleague by voting on the other side. A few weeks earlier, Pitt had with difficulty gained his sovereign's consent to a renewal of negotiations with the French Directory. Looking at the peace which Austria had just made with France, and at the growing tightness of the English money-market, he felt that no false pride or theoretical hatred of Jacobin ideas should bar him from seeking, by worthy means, to end "so bloody and wasting a war." In spite of Grenville's frequent chafing and the shiftiness of the French Government, things were beginning to look peaceable, when a change of Government at Paris, followed by a change of envoys at Lille, ended in Lord Malmesbury's leaving the latter place empty-handed on the eighteenth September. He had hardly returned home when Pitt received from Barras a secret offer of peace on his own terms, if a sum of two millions could be paid over to Barras and his friends. This treaty also, though taken up at the time by the English minister, somehow fell soon afterward to the ground.

On the twentieth September—the very day of Lord Malmesbury's arrival—Pitt received a sad shock in the news of his kinsman Eliot's death, at the early age of thirty-nine. His grief at the loss of one so dear to him was declared by his friend Rose to "exceed conception." Only seven months before had Eliot been prevented, by a severe illness, from accepting the post of Governor-General of India, for which both Dundas and Lord Cornwallis had specially marked him out. Trials like these must have gone far to bring on the frequent headaches, and other signs of failing health, to which Pitt's letters of this period now and then allude. Some quiet weeks, however, spent in the bracing air of Walmer and the society of occasional friends, restored him to such health as he was ever allowed to enjoy. The lounging rides, "which pretended to be called shooting," did for his body what social intercourse and spinning verses did for his mind. His paraphrase of Horace's noble stanzas beginning with "*Dulce et decorum est pro patria mori*," was probably written about this time. It reflects so happily his own character, that we may well be excused for quoting a set of lines in themselves not all unworthy of the original:

"How blessed, how glorious, they who bravely fall,

Their lives devoted, at their country's call !  
 Death, too, pursues the coward as he flies;  
 The dart o'ertakes him, and disgraced he  
 dies.

No mean repulse intrepid virtue knows;  
 Spotless and pure her native splendor glows;  
 No gaudy ensigns hers, of borrowed power;  
 No fame dependent on the varying hour;  
 Bowed to no yoke, her honors are her own,  
 Nor court the breath of popular renown.

On wing sublime resistless virtue soars,  
 And, spurning human haunts and earthly  
 shores,

To those whom godlike deeds forbid to die,  
 Unbars the gates of immortality."

That he who wrote these lines might also have written the good things by common report ascribed to him in the *Anti-Jacobin*, the first number of which came out in November of this year, it is not hard to believe; but his biographer having looked in vain for any "positive or contemporaneous testimony" to such a fact, doubts, not wholly without reason, whether Pitt added even one line to a serial whose wit and cleverness, however flat their savor in these days, did, at the time, succeed in turning the laugh against those who had long had it all their own way. One story connected with Canning's new venture serves to illustrate the tact and readiness of his great master. Among the guests at a ministerial party was a Mr. George Ellis, once a writer in the *Rolliad*, but now a follower of Pitt, and a foremost contributor to the *Anti-Jacobin*. Being called on by somebody to tell them all about the former poem, he "seemed a little embarrassed," until Pitt, with a good-humored smile, leaned forward, and quoted a line from Dido's speech to her new guest—

"Immo ære et a primâ dic, hospes, origine nobis"——

thoughtfully leaving unsaid the "errores-que tuos" which came soon after.

Among the guests this autumn at Walmer Castle was Lord Mornington, who, having gone to receive his last instructions before sailing for India as the new Governor-General, found "Mr. Pitt in the highest spirits, entertaining officers and country gentlemen with his usual hospitality." Not the least pleasant of those he met there was Admiral Duncan, whose fleet then lay in the Downs, and who, a few weeks later, was again to find a hearty welcome under the same roof as Lord

Duncan, hero of the hard-fought battle of Camperdown. This heavy blow to the Dutch fleet put an end to all fears of a French invasion for some time to come. To commemorate the victories lately won at sea over three hostile nations, by Howe, Jervis, and Duncan, a special service was held at St. Paul's on the nineteenth December. A long train of high dignitaries passed on to the great cathedral, through a crowd of respectful onlookers. One man alone—and he the one who least deserved such treatment—was exposed to serious insult by the way. Pitt's new budget, inevitable as it seemed to be, had roused the popular feeling against its author. Instead of returning with the others after the service, he staid to dine with the Speaker in Doctor's Commons, and went home in the evening, escorted by a body of London Light Horse.

During the last two years no fewer than thirty names had been added to the British peerage, a fact in itself by no means creditable either to King or ministry, but one which some of Pitt's enemies dressed in colors much darker than the truth. It has been said, for instance, that Lord Carrington gained his honors in return for a bribe of money to the Minister himself. This charge his biographer has quite exploded, for the benefit rather of the supposed giver than of him who was said to have received the money. For in all dispassionate eyes Pitt's honor needed no clearing from a charge so utterly at variance with the known facts of his career. He might be too ready to give away peerages for service done to the State; but the man who had more than once refused to mend his fortunes by means entirely fair, who had declined pecuniary help from the merchants of London, from his private friends, and was driven sorely against his will to accept the Wardenship of the Cinque Ports, could no more think of selling peerages for his private gain than of joining the United Irishmen in acts of treason against the empire.

The next year (1798) opened with some striking scenes. The Duke of Norfolk got turned out of his Lord Lieutenancy for having, on Fox's birthday, preached sedition at the Crown and Anchor, and varied the usual toasts by drinking to "The Majesty of the People." On the other hand, there now began to flow into the National Exchequer a stream of free-

will offerings, which on the very first day amounted to forty-six thousand pounds, and by the year's end had added two millions to the revenue raised by other means. The men who already bore much the largest share of the fiscal burdens were daily thronging to the Exchange with gifts ranging from a guinea to three thousand pounds. Merchants, bankers, members of Parliament, squires, manufacturers, peers, gave according to their several wills and means; the King himself leading the way with a promise of twenty thousand pounds a year from his privy purse. The Bank of England subscribed two hundred thousand pounds. The great Sir Robert Peel's father, then junior partner in a calico mill at Bury, on the spur of the moment, paid in ten thousand pounds, and then going back to Bury, with some fear of having overshot the mark, told his partner what he had done. "You might as well," was the reassuring answer, "have made it twenty thousand while you were about it." Meanwhile, the North of Ireland having had its turn of rebellion the year before, a yet more fearful one now burst forth in the South, unchecked by the timely arrest of its chief authors. Wexford became the center of a fierce struggle. Deeds of frightful cruelty were done on either side; the leaders, whether loyalist or rebel, being commonly powerless, even when they had the will, to stay their maddened followers' hands. Anxious to do the best he could at such a crisis, Pitt sent Lord Cornwallis to the scene of danger, as both Lord-Lieutenant and Commander-in-Chief. A better man he could not have appointed for the work of suppressing a fearful outbreak, and restraining the vengeful madness of his own allies. General Lake's grand scattering of the rebels at Vinegar Hill, on the twenty-first June, the day after his Lordship's arrival at the Castle, left the latter not much to do in the one direction; but there remained to him the far harder task of teaching Irish loyalists to temper victory with a due display of forbearance. How, aided only by the Irish Chancellor, Lord Clare, and the new Irish Secretary, Lord Castlereagh, he carried out the wiser policy in spite of the murmurs of all around him, need not be told here. Nor is this the place to show how heartily, when all fear of present danger from the French was over, he set himself to further Pitt's plan for effecting a

legislative union between Great Britain and Ireland.

In May of this year we find Pitt consulting with Dundas what kind of notice should be taken of an inflammatory speech, in which Fox had outdone the Duke of Norfolk on the same stage. At length it was agreed that the culprit's name should be struck off the list of privy councillors. Toward the end of the same month Pitt himself was called out by Tierney, the then leader of the opposition, for having refused to withdraw some offensive words used by him in debate, and demurred to at the time by the Speaker. In due time a duel took place at Wimbledon, and, after firing two shots each in vain, the pair parted without further ill-will. This warlike meeting happened on a Sunday. The next day Pitt wrote his mother a few lines, just to set her anxious heart at ease. His conduct in this matter gave birth to comments of various kinds. One party, headed by the King himself, who betrayed a friendly concern for his Minister's safety, was shocked at the risk so recklessly run by a public servant, whose life belonged in a special manner to his country alone. Others were even more shocked at seeing a man of Pitt's mark so ready to indulge in a practice utterly opposed to all rules of Christian morality. But for Pitt's earnest remonstrances, his friend Wilberforce would even have brought forward in the House of Commons a motion, of which, indeed, he had given the usual notice, for the prevention of dueling on the part of ministers. An attack of gout, and other symptoms of a frame diseased, followed, if it did not directly spring from the foolish business about which so much stir was made. Throughout that mid-summer Pitt's health continued so shaky, that his Majesty repeatedly urged him to take a few weeks' holiday at some inland watering-place. In the middle of July, Wilberforce found him at Holwood, much better, and "improved in his habits also;" by which he probably meant to say that Pitt rose earlier, and drank less wine than he had lately been wont to do. But change of air was still needed for such an invalid, and Pitt was enabled to spend the month of August partly at Walmer, and partly at Burton Pynsent with his mother. About the middle of September we find him again at Walmer, cheered with good news from Ireland, and watching eagerly for the



tidings, which had already been dimly rumored, of Nelson's glorious victory in the Bay of Aboukir.

A word by the way on one of those habits to which Wilberforce doubtless referred. That Pitt sometimes took more wine than was good for him, the known custom of his day would almost lead us to take for granted, if his friends themselves had not owned the general fact. But it seems equally clear that wine to him was a needful tonic, that his head, in drinking phrase, was strong, and that neither the public business nor his public speeches were found to suffer from his peculiar weakness. Once only, it is said, could his friends discover an excess of vinous ferment in their leader's oratory; and that was when he rose one evening after dinner to answer a personal attack upon himself. Next day the Clerk-Assistant of the House told the Speaker that Pitt's extravagance of the night before had given him a violent headache. On hearing this, Pitt laughingly declared it to be an excellent arrangement: "I had the wine, and the clerk got the headache."

The great battle of the Nile, for which Nelson was made a baron only, while Jervis, for a much smaller victory, had gained an earldom, check-mated Bonaparte in Egypt by making England mistress of the Mediterranean. Cut off from his home succors, he might still for a time press forward, triumphant everywhere, save when the pluck of an English ship's crew under Sidney Smith heartened the resistance of their Turkish allies. When he himself returned with a few friends to France, his lieutenants might still hold their ground against the rabble that sought to overpower them. But an army thus left to its own resources, must soon have melted away in fruitless fighting, or been driven to treat for terms, even had British troops not found their way at last to the scene of action. As it happened, these completed in the spring of 1801 the good work begun by Nelson's sailors in the autumn of 1798. For the measures which led to the battle of Alexandria and the final surrender of General Menou's wasted army, it is but fair, as Lord Stanhope urges, that Pitt's government should reap its full share of praise, in having planned what the Addington ministry were enabled to carry out.

Meanwhile, however, the war raged, and more funds were needed by the English Minister. In 1799 the Assessed Taxes

were exchanged for a general Income Tax of ten per cent on all incomes above two hundred a year, of something less by degrees on all incomes below two hundred and above sixty-five pounds. Of course the measure was abused by one set for favoring the lordlords, by another for favoring the moneyed men. Again, too, was use made of free-will offerings, many persons subscribing sums far beyond their lawful assessment. Pitt and Dundas in this way gave each two thousand a year, a sum which the former at least, had his name in the country been less prominent, might justly have been blamed for devoting to other uses than the payment of private debts. The question of funds for the year being settled, Pitt addressed himself to the scheme of an early union with Ireland. A message from his Majesty to that effect was delivered in the English Parliament on the same day that Lord Cornwallis opened the subject in College-green. Undaunted by a virtual defeat in the Irish Commons, Pitt followed up his opening move with a string of resolutions explained and enforced in a speech so powerful and well-reasoned, that Wilberforce, till then doubting which way to vote, determined straightway to support his friend. In this speech was clearly marked out the policy which Pitt would have had his countrymen pursue toward the bulk of their fellow-subjects in the sister island. After some keen but fruitless debating in the Lower House, the resolutions passed the Lords without a division. In Ireland, however, things went not quite so smoothly. The Parliament of College-green had yet to be molded into a proper mood of self-sacrificing loyalty: great landlords could not be expected to give up their political patronage without some return; the barristers and tradesmen of Dublin vied with the Orangemen of the North in their efforts to avert a change so likely to tell against the pockets of one party and the pride of the other. It was not till the beginning of next year that Castlereagh once more ventured to take the sense of the Lower House on a question which few there present had probably once thought of regarding from a thoroughly unselfish point of view. By this time, however, the Irish Government had made sure of its game; and neither the eloquence of Grattan nor the still numerous array of his supporters availed to undo the spells woven for their discomfiture during the past year. In

April, the Irish resolutions were laid before the English Parliament; a Bill of Union founded thereon was speedily carried through both Houses, and on the second of July, 1800, his Majesty's assent gave the crowning blow to a state of things which no unbiased patriot would now wish to see restored.

But we must return for a moment to the year before, in which, on the whole, success had smiled on our arms and those of our allies. In India, Lord Wellesley had begun his conquering career by the siege and capture of Seringapatam, Tippoo Sahib paying with his life and throne for his foolish plottings with the French Republic. Bonaparte's absence in Egypt, and a sudden change of feeling in the Russian Emperor's mind, had conspired to drive the French out of nearly the whole of Italy. A British army under Abercromby landed in Holland, and cut off the Dutch fleet in the Texel; but after the Duke of York took command of the allied British and Russian force, it was natural to expect the failures which really wound up that short campaign. Even had the Duke been a better general, Pitt's plan of freeing Holland from French rule could hardly have prospered in the face of so cold a welcome as the people generally gave to their supposed deliverers. That part, however, of his plan which concerned the Dutch fleet, had been well accomplished by the seizure of thirteen men-of-war—the last wrecks of that armament which Duncan had first shattered two years before. Among the higher officers who served that autumn under the Duke was Pitt's elder brother, Lord Chatham, whose name, a few years later, was to grow too famous in connection with the ill-starred expedition to the Scheldt. But a few days after the British army had been fain to bargain for its safe retreat from the country it was sent to save, an event of far more fatal meaning happened in France. On the ninth November, Bonaparte, newly returned from Egypt, overthrew the feeble government which had risen on the ruins of Robespierre's Reign of Terror, and made himself virtual ruler of France under the modest title of First Consul.

Straightway a marked change came over the fortunes of the war in Europe. While Pitt and his colleagues in Ireland were pushing forward their Bill of Union, the First Consul was leading a French army over the Alps, to beat the Austrians on the

plains of Marengo, and regain, in a few short weeks, every foot of ground lost to the French in Italy the year before. In Germany Moreau worthily followed his master's lead. The Russian Emperor had once more changed his mind, and sent no army to help the Austrians. By July Napoleon was back in Paris, and the defeated Austrians were glad enough to accept a truce during the summer. Pitt, too, was once more ready to treat for a general peace; but in his own cabinet there was no agreement about the terms, some wishing to restore the Bourbons, others objecting to any peace with a revolutionary government, and Dundas for one maintaining that England should treat for herself alone, should stand on the ground which her recent victories entitled her to take. As for the King himself, nothing could ever persuade him that the war had raged long enough, while a trace of the French revolution remained in Europe. Pitt, however, desired only such a peace as might tend to preserve a balance between the states of Europe, without trenching on the rights of nations to choose their own forms of government. In August, therefore, he also made advances which led to much correspondence, but nothing beyond. After six weeks of projects and counterprojects, the negotiations fell through for want of agreement about preliminary terms. This new disappointment, coming on the top of many anxious thoughts regarding the pressure caused by a bad harvest, did not tend to allay the illness under which the Minister was again suffering. A few weeks' stay, however, at Woodley, with his friend Addington, enabled him in November to begin the new session of Parliament with the discussion of means for relieving the present scarcity, and encouraging the growth of corn in England. Here, for once, his usual good sense seems to have failed him; and in spite of Grenville's earnest dissuasions, measures like the Brown Bread Bill were ordained for forcibly deranging the natural process by which prices fluctuate with every change in the mutual relations of supply and demand. Let us add, however, that he still avowed his old attachment to free-trade as a general rule, and sternly set his face against all demands for limiting, by law, the highest price of corn, or punishing those who raised its market value by withholding the stores they had already amassed.

When the United Parliament of Great Britain and Ireland met for the first time, on the 22d of January, 1801, the political horizon had grown yet darker than before. The snows of Hohenlinden had just been stained with the slaughter of another Austrian army. In wrath at our holding Malta, which he claimed for his own as head of the knights of St. John, the crazy Czar Paul had seized some hundreds of British shipping, and persuaded the Scandinavian powers to join him in maintaining an armed neutrality, which meant, in fact, a defensive league against England alone. But these, after all, were things of small moment compared with another cloud which hung right overhead. On the 28th January, his Majesty, according to his unkingly wont, told Dundas that he should reckon, "as his personal enemy," who ever should bring forward any such measure as that which Lord Castlereagh was said to have been discussing with Pitt. This measure was the one which Pitt and the Lord Lieutenant had long held out to the Roman Catholics as sure, at no distant date, to follow the union of the two kingdoms. The King was determined to refuse the least concession of their claims rather than give up his own reading of his Coronation Oath. Misled, perhaps, by his master's previous silence, and trusting to his own powers of persuasion when the time for speaking out should have come, Pitt had said nothing to the King about the plans which he and his colleagues were still engaged in perpending among themselves. Unluckily, he had not suspected that there was a traitor in the camp. His Chancellor, Lord Loughborough, a man of even less principle than Lord Thurlow, had, last autumn, taken advantage of the royal presence at Weymouth to betray the secrets contained in a confidential letter from the first minister, and to confirm the king in holding that view of his Coronation Oath which even his Attorney-General, the future Lord Eldon, had, five years before, pronounced untenable. Hence it happened, that now, instead of the former concert, Pitt found half his cabinet siding with the Lord Chancellor. Presently, Addington, at the King's request, tried to dissuade his friend from further movement in a matter about which his Majesty's wrath could hardly keep itself under any control. Pitt, however, had gone too far to stop short without loss of honor. In a letter full of eloquent reasoning, he

tried in vain to soften the King's heart. His Majesty would only offer such a compromise as no honorable man, in Pitt's position, could have accepted. On the fifth February, the former gave an unwilling assent to his servant's prayer for dismissal; and thus, after many years of loyal service to his King and country, the ablest minister and most high-minded statesman of that long reign, fell a sacrifice to the jealousy or the time-serving of a few false friends.

While the Speaker, Mr. Addington, was forming a makeshift ministry, with the help of Pitt's smaller colleagues, the late ministry still carried on the business of the day. Pitt opened out his budget for the coming year, and Lord Cornwallis, at his request, did all he could to pacify the Roman Catholics of Ireland. It is pleasant to remember that Lord Loughborough gained nothing by his late treachery. On the other hand, the poor King's anxieties, torn as he was between an honest regard for his oath and the need of parting with a friend who had served him so long and so ably, drove him, ere long, into a state of mental disorder, resembling the seizure of 1789. Before the end of February, there was some talk about a Regency. By the sixth of March, however, his Majesty had so far recovered as to send Pitt a message, telling of his renewed health, but upbraiding the other for having caused his illness. So deeply was the latter moved by these unfair, but to him grave reproaches, that he begged Dr. Willis to assure the King, that during the rest of his reign this vexing question should never again be mooted by Mr. Pitt. Grateful to the private feelings of a minister whom the King had long valued as a personal friend, must have been the joy his answer gave to the worthy old couple at Court. But was he justified, as a patriotic statesman, in forgoing all further efforts to arrest the discontent of a whole nation, because by any other line of action, one man's wits might possibly be deranged forever? At the worst, however, this was an amiable weakness; and it is not unlikely that Pitt may have been further swayed, either by reflections on his Majesty's ripe age, or by fears of what might happen to the country if the Prince of Wales, whose character he heartily loathed, were too early seated in his good father's throne.

Pitt's friends now hoped to place him once more at the helm of state. But no-

thing would persuade him to return, unless the King and the new Minister both asked him back of their own accord. Luckily for his own fame, no such step was then taken. His act of retirement preserved its true character, a willing sacrifice of self to an overpowering sense of duty. The conditions on which his friends believed him willing to reënter office, he himself doubtless knew to be unfeasible. As it was, he gave to the world a bright example of the self-denying patriot, who, when fortune frowned on him, could "wrap himself in his virtue, and take up honest poverty without a dower."

On the fourteenth March, Pitt gave up the seals to his master, who received him with "the utmost possible kindness," and prayed that he might still be visited as a friend—an honor which the former prudently declined. His own retirement was accompanied by that of Cornwallis, Castle-reagh, Canning, Dundas, and the faithfulst of all his followers, Mr. Rose; while several others would hold office in the new Government only at his most urgent request. Lord Wellesley himself, from his high post in India, wrote him a letter full of the warmest friendship, and expressing his readiness to share his chief's retirement as soon as another viceroy could be sent out in his stead. In Addington the King found a pleasant courtier, but it was mainly to Pitt himself that all men, including the King and his new minister, looked for guidance in matters of special weight. Without him the feeble Government, headed by the "doctor's son," could hardly have lived a day. With his help, as given both in public speeches and private counsel, it struggled on through the short years of peace, until, with the return of war, came a general cry for the minister in whom alone the nation trusted to carry it on. The very first days of the Addington ministry were signalized by successes to which the former Government had led the way. Through Nelson's glorious daring, in defiance of orders, at the battle of Copenhagen, the Northern Coalition received a shattering blow, but a few days after the fate of the French in Egypt had been settled by Abercromby's life-bought victory at Alexandria.

While the French and English Governments were engaged this summer in treating for peace in the midst of warlike movements on either side, Pitt was reaping the just reward of long-continued carelessness

about his household affairs. Plundered for years past by his own servants, and never giving himself the trouble to make even a show of putting his house in order, he had sunk far deeper into debt than Sheridan ever sank at the worst of times. Creditors began to plague a man who owed forty-five thousand pounds, and, once out of office, could hardly have scraped together three thousand a year. His friends and admirers took counsel with each other what should be done. Some of them proposed a parliamentary grant. Of this, however, Pitt would not hear a word; had he left the country peaceful, and prosperous, such an offer might not, he said, have been out of place; but as things were, the idea was utterly opposed to his own feelings. Once more the merchants of London begged him, as they had done in 1789, to accept a free-will subscription of a hundred thousand pounds. This offer, too, with some show of reason, was once more declined. The King himself came forward with an offering of thirty thousand from his privy purse, an offering made through Rose with a delicacy which could not have been surpassed. Never had Rose seen his friend so moved as when he heard of his sovereign's noble act; but to him also Pitt remained inexorable. At last, he agreed to accept a few thousand pounds, contributed by a few of his personal friends, which, with the sale of Holwood, enabled him to satisfy the more urgent claims. The joke he had uttered against Fox some years before might now have been taken up against himself. When some one in Pitt's company had expressed a wonder how Fox would take the subscription his friends were secretly making for him—"Take it?"—said Pitt—"why, I suppose that he will take it quarterly, or, perhaps, it may be half-yearly!"

In the autumn, Pitt was again in town, helping to draw up the terms of that treaty of peace which some knowing critics have, from time to time, charged him with resigning office sooner than bring about. While Fox, with his usual factiousness, publicly rejoiced at a peace so "glorious to the French Republic," his nobler rival thought only of the rest his country would now enjoy from a war which, on her side, had only been undertaken for purposes of self-defense and in regard for solemn treaties. Both before and after the last signing of the Peace of Amiens, in March, 1802, attacks were frequently made in



Parliament, now by the more violent Tories against the terms of peace, now by the violent Radicals against divers measures of the late Government. As a private member, Pitt no longer troubled himself to attend debates of trifling moment; but whenever the new ministry needed a helping word, or his presence might check the rashness of his old followers, he was pretty sure to be found in his place. Once, however, perhaps of set purpose, he missed receiving to his own face the highest compliment that has ever been paid to any minister by any House of Commons. In answer to the repeated attacks of an opposition maddened by the sense of its own weakness, an immense majority carried a special vote of thanks to the Right Hon. William Pitt, for the "great and important services" he had rendered his country. A few days after, on the twenty-eighth May, a great banquet was held at Merchant Taylors' Hall in honor of Pitt's birthday, and during the evening was sung that spirited song, in which Canning had only reflected the national feeling toward "the pilot that weathered the storm."

Once more the Clerkship of the Pells became vacant through the death, in July, of Colonel Barré, and once more Pitt refused to take so fat a sinecure, as Addington wished him, for himself. Surely there was some flaw—let us say it without a sneer—in that fine sense of honor which scorned to take money for no work done, yet felt no shame in running up bills far exceeding the debtor's power to pay!

Pitt's life for some time forward seems to have been a thoroughly happy one. At Walmer Castle he busied himself in all kinds of out-door amusement—riding, sailing, shooting, farming, until another fit of illness obliged him, at Sir Walter Farquhar's urgent entreaty, to try for the first time the waters of Bath. Before starting thither, in November, he received a curious letter from Louis Philippe, then Duke of Orleans, who, pointing out the strategic importance of Switzerland to the Allies, offered to take command of the whole Swiss army. From Bath he counseled Addington to give Bonaparte no good grounds of offense, but at the same time to keep England ready for the war, which might at any moment be once more forced upon her hands. Canning and some other of his friends began just then to show an unwise zeal in plotting for his return to power; but Pitt no sooner heard of the mischief

brewing, than he strongly besought them to give over. Ere long he ceased to furnish the Cabinet with counsel, the full means of forming which were not always within his reach. At every sound of political action, however, his ears would prick up like those of an old war-horse at the distant blare of a trumpet. One day some rash speech of Canning's would make him for a moment sore, for fear of its endangering the good-will between himself and Addington. On another, he would treat Lord Malmesbury, by way of talk, to an extemporized retort on Fox for some outbreak of more than usual virulence on the part of a statesman consistent only in his antagonism to Pitt. Again, we find him sending Canning a message of hearty praise for a speech of peculiar merit, and forgiving Sheridan's pretended abuse of himself for the heavy blows he had thereby cunningly managed to deal at Fox. From London, however, and from steady political work he was persuaded for several months to keep quite aloof, varying his stay at Bath with visits to his mother and to divers friends, with whom his evenings were passed in cheerful talk; sometimes, as with Canning, in looking over some Greek or Roman author, and not seldom, as with the Malmesbury ladies, in playing at *Speculation*, the new round game of cards. For Lord Malmesbury was not the only one who found Pitt "the pleasantest companion possible at and after dinner."\*

At the beginning of 1803 he was again at Walmer, laid up for several days with an attack of gout and bile. By this time Bonaparte was already driving us, by his bad faith and restless ambition, either to maintain a dishonorable peace, or to make ready for another war. No one had been more anxious than Pitt to insure his country at least a few years of peace; but no one saw more clearly into the First Consul's nature, or was less inclined to put up with his hectoring ways. Accordingly, he urged the Government, through his brother, Lord Chatham, not to dream of surrendering Malta until Bonaparte had thoroughly changed his tone and tactics. In March he writes again to urge that prompt means should be used to forearm the country against a sudden attack on the part of

\* So popular was Pitt throughout the country, that when he reached Shepton Mallet, in Lord Bath's carriage, the people who had come in to market, took out the horses, and drew the carriage themselves, on the spur of the moment, to the inn.

a neighbor whose plans were every day becoming more clear. Of course, when things began to look serious, the cry for Pitt as Prime Minister waxed louder than ever. By way of satisfying it, Addington at first proposed a new Cabinet, headed by the utterly feeble Lord Chatham, with himself and Pitt for Secretaries of State. Dundas, now become Lord Melville, sounded Pitt on this matter over their port wine, and returned more openly to the charge the next day. But Pitt, who knew his own worth, and more and more disliked the financial policy of his successors, would hear nothing of a plan which gave to one minister the lead in council, and to another the first place at his Majesty's private ear. Presently, with more wisdom, and with a good deal of praiseworthy forbearance, Addington was ready to serve under Pitt, if only Grenville, Windham, and Canning, who had shown themselves the fiercest of his political foes, were left out of the new ministry. But to this also Pitt would not agree; and his refusal of the only compromise which a man of any self-respect could well stoop to offer, gave much offense to many others beside the King himself. It is fair, however, to remember, that with all the trouble they gave him, and with all their fierce or fussy attacks on a minister of his own approving, Pitt, for his own part, had some good reason to uphold the claims of a party containing his best speakers and some of his most powerful allies. Perhaps we should allow, with Lord Stanhope, that neither he nor Addington could well yield the point on which they differed. Nor can any greed of power be fairly laid to the charge of a man whose present conduct delayed his return to power for a twelvemonth longer.

At length, on the twentieth of May, a few days after the declaration of war with France, Pitt once more showed himself in the scene of his many triumphs, the House of Commons. Three days after, in the debate on the King's message, the Achilles of the English Parliament delivered a speech, which those who heard it agreed in ranking among the greatest efforts of so great a master. During this session he held a middle course between the ministers and the regular opposition, urging on the former when they seemed to flag, and freely assailing them when they seemed to be going wrong. So great, indeed, was their fear of him, that an Income Tax

Bill, which they had one day carried by a large majority, was altered the very next in accordance with the amendments which Pitt had vainly demanded the day before. On all questions of national defense, they found him eager to turn the warlike spirit of his countrymen to the widest account. While some were all for increasing the regular army alone, his good sense taught him to set high store by that cheapest defense of all free nations, a large muster of trained volunteers. It was then a stirring time for the people of these islands. Emmet's outbreak, in Dublin, had hardly been put down when England began to arm herself in every town and village against the enemy, whose long lines of plunder-loving veterans flashed coming havoc from the cliffs of Boulogne. Almost before the end of that summer, in spite of hindrances offered by a wavering Government, some three hundred thousand volunteers had answered the challenge flung from beyond the Channel. As Lord Warden of the Cinque Ports, Pitt himself had been foremost in meeting the expected danger, by raising a body of three thousand men from his own district; and at any time that autumn he might have been seen in his volunteer uniform, riding about as brigadier, to inspect or review his three battalions. One of these, it seems, had drawn up rules marked by the frequent proviso, "except in the case of actual invasion." On reading the draft rules, Pitt came at length to a clause providing that the corps should never be sent out of the country. Pitt's ready pen at once added the words, "except in the case of actual invasion."

In August of the same year, Pitt's niece, Lady Hester Stanhope, having lost her old friend the Dowager Lady Chatham, came at her uncle's request to keep house for him at Walmer Castle. At the age of twenty-seven, the future yirago of the Lebanon indulged in no worse sallies than such as might readily be forgiven to a lady of good birth, of much personal beauty, of varied accomplishments, and of a lively, biting wit. During the short remainder of Pitt's life, her loving service was freely rendered him, and her presence gave to his dwelling the one charm it had never known before. For him and a few favored friends she reserved the better part of her inward self, but her wit would play unmercifully on those for whom she had no special liking. One morning, for instance, more than a year later, when

Lord Mulgrave, then become Pitt's Foreign Secretary, was seated with her at breakfast, a broken egg-spoon was given him to eat his egg with. In answer to his question, "How can Pitt have such a spoon as this?" she asked him if he had not yet discovered "that Mr. Pitt sometimes uses very slight and weak instruments to effect his ends."

In the short Christmas session little was done, beyond a partial attack made by Pitt on the ministerial mode of handling the volunteer movement; and this attack resulted in the virtual adoption of Pitt's own plan. Next year, however, Pitt's criticisms became more frequent, and more unfriendly. He would not join with Grenville in a regular assault on his whilom friends, but he could not stand by and see, in silence, things done of which he heartily disapproved. Lord St. Vincent's blundering management of the navy provoked him into making a motion which, failing of its apparent aim, did nevertheless succeed in shaming the Admiralty into exertions better according with the need of the hour. At this time, also, the King's illness made him pause before he bound himself to join Fox and Grenville, in their efforts to turn out the present ministry, but the King soon after got well, and Pitt saw no reason for delaying the fall of a government already tottering for months past. After a few pitched battles, each more ruinous than the one before, the Addington ministry agreed on the twenty-ninth April to give up the hopeless struggle. On the next day Pitt was commanded by his Majesty to draw up a written plan of a new government.

Pitt obeyed, but the wish he felt to insure the country a strong government, led him to include in his draft plan the names of Fox and Lord Grenville, two men whom his Majesty specially abhorred. On the fifth May he received from the King a cold and querulous letter, in which his Majesty not only refused to accept the names of men so hateful to him, the one on personal, the other on political grounds, but even demanded from Pitt the plainest assurance of his belief in the wisdom of that very Test Act, which Pitt would have repealed three years before. The Minister's answer was worthy of his upright self. He assured the King of his adherence, both to the opinions held by him in 1801, and to the promise he had then

given his Majesty, not to stir the Catholic question during his reign. Avowing his readiness to yield the other points, if so his Majesty commanded, he still begged the favor of a personal interview. This was granted. The King, who had hardly spoken to his old servant for the last three years; who had even once passed him in Hyde Park, without notice, now received him with compliments and kind shows. Pitt for three hours pleaded his friends' cause, and not quite in vain. With Fox, indeed, his master, for very good reasons, would have nothing whatever to do; but some of his followers might be admitted into the new Cabinet. Pitt was welcome also to take in Lord Grenville. But when he proceeded to act upon these concessions, he discovered that both the Grenville party and the followers of Fox refused to enter a Cabinet whence the great Whig leader himself would be shut out. It was in vain that the latter urged his own friends to take the opening denied to himself. Grey and Sheridan were not less resolute on the one side, than Grenville and Windham on the other. Deeply hurt at the willfulness of his own kinsman, Pitt determined "to teach that proud man that he could do without him, although the effort might cost him his life." How much he meant by the last clause may be gathered from the conviction, expressed by Lord Castlereagh in a letter written just about this time to Lord Wellesley, that, if *Pitt's health did not fail him*, the present trouble would only rouse him to greater and more successful exertions than ever.

It seems hardly worth while to clear Pitt from the blame imputed to him by Lord Macaulay for so soon giving up the point regarding Fox. He had no great cause to love his former rival, whose sentiments and conduct were widely different from his own. The King had not quite recovered from a dangerous illness, and he hated Fox as heartily as a high-minded, somewhat overweening monarch could naturally hate the factious, low-toned ally of his unworthy son. It was very doubtful whether Fox would any how have agreed to take office under Pitt; while it seems pretty certain that the pair could never have held together long. After all, too, it was, perhaps, the alliance between Fox and Grenville which at first induced Pitt, anxious only for the help of his kinsman and former colleague, to plead

for the admission also of that kinsman's new friend. Moreover, let us not forget that the new Minister had for some time lain under the cloud of his sovereign's displeasure; and that, however highly he might have valued the support of Fox, he had no reason to mistrust his own power of governing the country without that support.

With failing health, and a Cabinet somewhat shorn of the wished-for strength, the great Minister prepared to make good the words which he had uttered in his wrath against Grenville. In Parliament he had to meet the combined attacks of three different parties, led severally by Grenville, Fox, and Addington. Across the Channel, Napoleon, late First Consul, now a full-blown Emperor, was weaving his plans for gaining that brief command of the sea, which was all the opening he needed, for a triumphant raid upon British soil. So sure was he of the desired issue, that medals were actually struck, as if London had already fallen into his hands. Later years have but the more clearly proved what Fox and Grenville, in 1804, professed to gainsay, the timeliness of Pitt's exertions to ward off the threatened invasion. Nothing but a chain of tiresome mishaps, one while the slowness of his agents, at another the death of his trustiest commander, or, again, the wind's perverseness in blowing from the wrong quarter, prevented Napoleon from trying to carry out his scheme of vengeance on the overweening islanders. While Grenville busied himself with his books and gardens, and Fox accused the ministry of raising groundless alarms, Pitt was calmly grasping at every means of statesmanlike defense against the onset of a foe whose true measure he had already taken; in whom, to quote from a fragment written by himself this very year, he saw "all the capacious jealousy of conscious usurpation dreaded, detested, and obeyed; the giddiness and intoxication of splendid but unmerited success; the arrogance, the presumption, the self-will of unlimited and idolized power; and, more dreadful than all, in the plenitude of authority, the restless and incessant activity of guilty but unsated ambition." After some fierce debates in the Lower House, where Castle-reagh and Canning were now his only allies of mark, he carried his bill for establishing a better system of army reserves. Martello towers were built along

the southern coast of England. Fire-ships were fitted out, in the vain hope of destroying the Boulogne flotilla. The Spaniards began openly to arm against us, and forthwith our admirals were ordered to seize the Spanish treasure-ships on their way from America. Russia, Sweden, and the German Powers were once more invited to form a close alliance with Great Britain against Europe's common foe. Plans were sketched by Pitt himself for landing British and Russian troops in the south of Italy, and British, Russian, and Swedish troops in the north of Germany, while Austria and Russia were to deal with the French in Northern Italy, and Prussia was to play her part along the Rhine.

Amidst the greater cares of this period Pitt found time to aid Wilberforce in his effort to put down the slave-trade. A bill for abolishing it in five years actually for the first time passed the Commons, but so late in the session, that no hope remained of carrying it this year through the Lords. One step, however, toward the overthrow of a system whose abettors were still almost as powerful as the foes of parliamentary reform, was taken by Pitt on his own authority. An order in Council, issued in November, decreed the extinction of the slave-trade throughout the conquered colonies; and this fact alone, not to speak of his many former efforts in the same cause, makes our astonishment all the greater at Lord Brougham's unfounded remark of Pitt's time-serving on this very question. Among other matters which also this year engaged Pitt's attention, were the attempted settlement of the quarrel between his Majesty and the Prince of Wales, and the choice of a new Archbishop of Canterbury in the room of Dr. Moore. In the former case, just as the King was ready for the promised interview, the Prince excused himself from attending on the plea of illness; and a second attempt to bring them together later in the autumn fell through in nearly the same way. With regard, on the other hand, to Dr. Moore's successor, Pitt pleaded hard for his old tutor, Bishop Tomline; but the King had fixed his fancy on Dr. Manners Sutton, and when Archbishop Moore died, in January, 1805, it was the Bishop of Norwich, not he of Lincoln, who was chosen to fill his place.

The year 1805, the last of the great Minister's public life, opened with fresh



fights in Parliament. Fiercely was Pitt assailed for his seizure of the Spanish frigates, for his scheme of recruiting the army reserves, for his silence regarding the Catholic claims, which Fox himself was to hold in abeyance the very next year. Sheridan, Fox, Grey, and Windham kept firing their pointed shafts at every seeming hole in the strong man's armor. But their keenest onset came to nothing against the champion of a good cause, backed by a large following, a heart of rock, and a tongue which had lost none of its old sharpness. Sheridan himself was scathed with such a shower of scornfully playful sarcasm, that he could only answer with a long screech of personal abuse, redolent of the Madeira he had gulped down in the meanwhile. All these triumphs, however, cost Pitt dear. The hard work told so heavily on his broken health, that the approach of Easter found him anxious to take some little holiday at Bath. But again, as during the year before, public business kept him at his post; and this time the business was to him of a kind exceedingly painful. It concerned the fair fame of Lord Melville, the oldest, steadiest, and most powerful of Pitt's supporters during the long term of his former ministry, and now the able head of that department which Lord St. Vincent had done so little to adorn. Before Easter came, Pitt knew that the Opposition were determined to bring forward a vote of censure against the chief of the Admiralty for misapplication of public moneys while he held the post of Treasurer to the Navy. To them it mattered little whether his Lordship were really guilty, if so they might get rid of an able minister, or overthrow, perhaps, an obnoxious Government.

It was in vain that Pitt, believing firmly in his friend's innocence of more than a trifling oversight, tried every means he could to defeat his opponents, or at least to effect a compromise. It was bootless for Canning to declare that if Lord Melville had either told more or less than he did about the matter, no case could have been made out against him. Some of Pitt's own supporters took part, for various reasons, in the assault on a Minister whose honesty of purpose no one pretended to doubt. On the eighth of April, Whitbread opened fire in a long speech. Pitt proposed a Select Committee, instead

of a vote of censure. But when Wilberforce spoke in favor of Whitbread's motion, and other independent members followed suit, the issue began to look serious. At length the votes were taken, and found exactly equal. After a pause of several minutes, the Speaker, Abbot, with a white face, gave the casting vote against Lord Melville. Pitt jammed down his little cocked hat on his forehead, while the tears were seen trickling down his cheeks; and, fenced round by a circle of his younger followers, he walked like one bewildered out of the House. On the same day—for the debate lasted far into the morning—Lord Melville resigned his office; and, finding himself still pursued by the rancor of his enemies, besought Pitt to let his name be struck off the Privy Council. To an offer so generous Pitt gave a very unwilling assent. When Whitbread again rose to demand further penalties against his Lordship, Pitt stopped him with the announcement of what he had already done in deference to the seeming wishes of the House of Commons, declaring at the same time, with a quivering lip, and in tones that seemed to tremble through the hall, how deep and bitter a pang he felt in being thus made the means of yet sterner punishment to his noble friend. How much of that punishment was really deserved may be gathered from the issue of Lord Melville's impeachment the next year, when a large majority of his peers found him guiltless of all the offenses laid to his charge.

Not content with smaller game, Whitbread presently flew at the First Minister himself, for having, in 1796, advanced some of the public money to two contractors, Messrs. Boyd and Benfield. This time, however, his prey escaped him. An amendment, justifying the partial breach of law, was carried without a division. Ere long another trial awaited Pitt. On the thirteenth of May, Fox brought forward a motion in support of the Catholic claims. It was painful for a man of Pitt's high character to vote against a measure which, in his heart, he probably desired more earnestly than did his rival; but, with his usual straightforward cleaving to his word, he avowed the continuance both of his old feelings toward the Roman Catholics and of the particular causes which bound him still to waive the advocacy of claims as lawful as he firmly

believed them to be harmless. With a passing tribute to the "splendid eloquence" of Grattan's first speech in the Imperial Parliament, he warned his hearers against now attempting to stir a question which he saw no chance of getting speedily settled. Of course the motion fell through. About this time, also, Lord Sidmouth began to talk of throwing up his post in the Cabinet. He had been half hostile to Lord Melville, while some of his followers openly voted against that nobleman. Persuaded for a time to stay on, he and his friend Lord Buckinghamshire left the ministry for good in July. Out of these losses one good thing arose—in Lord Castlereagh Pitt gained one of the very best War Ministers whom this country ever saw.

Amidst the turmoil of home politics Pitt never lost sight of foreign affairs. In April he persuaded the Emperor Alexander to conclude a secret treaty with Great Britain. By the end of August his rough plans of the year before had borne fruit in the shape of a coalition strong enough, one might have fancied, to crush Napoleon at one blow. Russia, Austria, Naples, and Sweden were at length prepared to make common cause with England against the imperial shifter of his neighbors' landmarks. Nelson was flying all about the Atlantic in search of Villeneuve. Castlereagh was preparing to land in the north of Germany the first division of an English army larger than any yet dispatched to the scene of war, and commanded no longer by the Duke of York. A scheme of his own planning was about to be tried against the Boulogne flotilla. Pitt spared no effort to win wavering Prussia over to our side. But Bonaparte was not to be taken in the toils. With one of his eagle swoops he had dashed away from Boulogne to cut off General Mack at Ulm, and the surrender of thirty thousand Austrian soldiers in the middle of October cast a foreboding gloom over many hearts. But a gleam of rare sunshine soon followed. On returning from his bootless chase, Nelson had landed, seen Pitt, who accompanied him to his carriage, and presently embarked on board the Victory, in chief command of a large fleet bound for Cadiz to meet the enemy. A few days after the capitulation of Ulm, the great sailor fought his last and greatest battle off Cape Trafalgar. The news of

that peerless triumph, dashed by the death of England's peerless Captain, having been brought to Pitt in the middle of the night, he, contrary to his wont on former occasions, could not compose himself to sleep again, but got up at three in the morning. Soon after the event had become noised abroad in England, Pitt dined at the Mansion House on Lord Mayor's day. On his health being drunk as the savior of Europe, he disclaimed the special compliment in a speech of little more than these few words: "England has saved herself by her exertions, and the rest of Europe will be saved by her example." It was at this same banquet that Erskine, getting up to speak, was told by Pitt, with a warning shake of the finger, to remember they were drinking his health "as a distinguished Colonel of Volunteers." Erskine's fear of Pitt, who could always check him by a look or a gesture, saved the company from a rambling speech on all kinds of political topics.

The battle of Trafalgar seemed to give Pitt new health and spirits during the rest of that year. The Duke of Wellington, then Sir Arthur Wellesley, hero of Assaye, and brigadier-elect under Lord Cathcart, tells of his liveliness, his long rides, his quiet dinners, and not intemperate suppers, when the two were staying at Lord Camden's seat in Kent. Another friend who met him in Gloucestershire remembers his fondness for Lucan, the playful ease of his manner, and the instructive richness of his talk. No one, he adds, would have discovered a trace of the Prime Minister in the "accomplished idler," who touched so pleasantly on all kinds of topics, grave or gay. In December we find him doing the invalid at Bath, entertaining several of his friends by turns, and playing the critic, at their own request, to Canning and Lord Mulgrave, one of whom had written a spirited, the other a feeble poem, on the battle of Trafalgar.

But the great Minister's days were already numbered. The gleam of sunshine born of Nelson's great victory too soon passed away before a cloud of unforeseen disaster. That victory had saved England from all chance of a French landing for years to come, but the tremendous defeat which Napoleon, a few weeks after, dealt on the Austrian and Russian armies at Austerlitz, sealed the doom of that great

coalition which Pitt had toiled so hard to carry out. This cruel overthrow of plans framed with the utmost skill and the largest foresight, was more than Pitt's weakened body could bear. His mind remained unconquerable; but the gout, which had shown itself in his feet, was driven inward, and, after a month of gradual wasting, the greatest Minister and one of the noblest men whom England ever produced, peacefully breathed his soul away on the morning of the twenty-third January, 1806, in his hired house on Putney Heath. The last words he was ever heard to utter were words of tenderness for that country whose grateful remembrances during his long term of power he had done so much to deserve.

On the marks of respect shown to his memory, on the splendor of his public funeral, on the costly monument built for him at the public expense, on the payment of his debts out of the public purse, and the pensions granted to his kinswomen, what need is there to dwell? All these and many other particulars of his life and death are fully and clearly told by his new biographer, whose work not many, we think, could read through without bringing away with them a clearer impression of the man therein described, and a deep conviction of his great pre-eminence as statesman, minister, patriot, over all the parliamentary leaders of his own day. If his Lordship has done no more than this, if he has treated us to no pages of brilliant writing—no passionate outbursts of one-sided praise—no reckless handling of topics beside the mark—let us be only the more thankful for a kind of abstinence in these days rare enough. He has, at any rate, produced four volumes full of matter at once agreeable and well-chosen—sometimes even quite new; volumes which only a gentleman could have written, in a style easy, simple, not devoid of a certain quiet grace, relieved by not a few passages of polished eloquence, and by many a phrase which surprises the reader for its happy yet unobtrusive point. On the whole, his life of his great kinsman seems to be at once truthful in spirit and comprehensive in its details. Nothing has been willfully garbled, and many things have been set in

their true light. Some of us may still be allowed to question the wisdom of all his measures for keeping down the Jacobins at home, or removing the pressure caused by a bad harvest and a lengthened war; others who think that literature and the arts need help from men in power, may agree with Lords Stanhope and Macaulay in blaming Pitt for not giving a pension to Cowper or a bishopric to some able churchman, though he seems to have pleaded hard for Paley, and had probably some hand in making an exciseman of Burns. Few of us would now break a lance in defense of the famous Sinking Fund, and some may perhaps rightly regret Pitt's exceeding deference to his sovereign's will; though on the latter point Fox himself but followed his rival's example a year after that rival's death. But Pitt's excellence as a financier, his large views of fiscal and commercial policy, the skill and energy with which he carried on the war against an enemy who could never grant him the only kind of peace for which an English statesman should ever care, seem to our thinking no longer questions for fair dispute. Had he but lived a little longer, indeed, the chances are that the war would have ended happily many years before the battle of Waterloo. Nor can any one now pretend to ascribe his retirement in 1801 to any other than the cause already named. But clearest of all is the moral light on which he stood above his fellows, by reference to which alone can his more doubtful actions be fairly judged. To call him greedy of power, is simply to betray one's own blindness to his real worth. Great as an orator and a statesman, he was greatest of all as a high-minded patriot, an honest gentleman, and loving-hearted Christian. The man whose youth was so pure, whose temper was so forgiving, whose friendships were so true, whom Wilberforce deemed the most upright man he knew, whose moral sway over the British Parliament was acknowledged with an envious sigh by the most selfish of men, Napoleon Bonaparte, did he not well deserve the trustful homage of that nation whose strength he wielded for so many years? May England never cease to be proud of such a statesman—never learn to disparage the moral nobleness of such a man!

From the St. James's Magazine.

## THE TRUE FOUNDER OF VIRGINIA.

### PART I.

#### KNIGHT-ERRANT AND SLAVE.

"THE true founder of Virginia!" I hear the reader exclaim. "Why, Raleigh, of course!" Error, my good sir: Sir Walter *failed* to found Virginia. "The true founder of Virginia, and who deserves to be called the father of the settlement," writes Bancroft, the historian of the United States, "was Captain John Smith, an adventurer of rare genius and undying fame." The rare genius is unquestionable; but the fame, undying though it be, will, I fear, continue to be confined within the limits of a comparatively narrow circle of admirers, unless I shall succeed in popularizing the varied, brilliant, romantic career of Captain John Smith, native of Willoughby, Lincolnshire—daring seaman, gallant soldier, chivalrous knight; beloved of ladies, European, Asiatic, and Indian; hero of three single combats—veritable, serious tournaments—fought by cartel within sight of two applauding armies and bevy of fair dames; slayer with a corn-flail of a three-tailed bashaw, by whom he was held in cruel slavery; finally, the fascinating hero who won the heart of, and whose life was saved by, the beautiful Pocahontas, daughter of Powhatan, after the mode more or less felicitously reproduced by Cooper and other Indian story-tellers; "which charming princess of the woods," writes the hero himself, "ultimately came to settle in England, having previously married a Mr. John Rolfe, and been baptized Rebecca—the first Christian of that nation that ever spoke English, or had a child in marriage by an Englishman—a matter surely, if my meaning be truly considered and well understood, worthy a princess's understanding."

The rough sketch of his life, written by himself, and dedicated to William, Earl of Pembroke, is, without exaggeration, a series of romances, strung together with modest unpretense, and sparkling with war and love adventures sufficient, if pro-

perly diluted, to fill the pages of twenty three-volume modern novels.

Captain Smith was celebrated in his own day by nearly all the minor poets cotemporary with him—Turner, O'Rourke, Carter, Ingham, Meade, Freet, Brathwaite, and others. The last breaks out in the following laureate-like laudation of his hero:

"Two greatest shires of England did thee beare—  
Renowned Yorkshire, Gaunt-styled Lancashire.  
But what's all this? Earth, sea, heaven above,  
Tragabigzanda, Callamata's love,  
Dear Pocahontas', Madame Shanoi's too,  
Record thy worth, thy birth, which, as I live,  
Even with thy reading, such choice solace give,  
As I would wish (such wishes doe well)  
Many such Smiths in this our Israel."

Freet thus:

"Thou hast a course so full of honor runne,  
Envy may snarle as dogges against the sunne."

Hear another cotemporary crier—the gallant O'Rourke, baptized Bryan:

"To see bright honor sparkled all in gore  
Would nerve a spirit that ne'er fought before;  
And that's the hight of Fame when her best blood  
Is nobly spilled in actions grand and good.  
So thou hast taught the world to purchase Fame,  
Rearing the story on a glorious frame;  
And such foundations doth thy merit make it,  
As all Detraction's rage shall never shake it."

A few sentences of plain prose in addition to these poetic flourishes, and then enter, anno Domini 1599, John Smith, of Willoughby, Lincolnshire, aged about twenty, with the first blush of military fame mantling his bright youthful face, upon which discerning eyes perceive that a heroic life has already dawned and glassed itself.

Smith was educated at the Free School of Alford, and when but thirteen years old had lost both parents, a catastrophe by



which he literally fell amongst thieves—his guardians—who wasted his inheritance, and thought finally to dispose of their charge by binding him apprentice to Mr. Thomas Sandell, merchant, of Lynn. The monotonous drudgery of desk-work was not likely to suit the taste of a fiery young gallant, who, as he is careful to tell us, was descended on the paternal side from the ancient Smiths of Cradley, Lancashire; on the maternal, from the Richards, of Great Fleck, Yorkshire; and that, too, at a crisis in the world's history when the minds of men were excited, inflamed by the great conflict evoked by the trumpet-tones of Martin Luther; and when, by the discovery of America, the boundaries of the earth seemed to be enlarged for the purpose of affording new and grander fields for the development of heroic enterprise, where nothing seemed impossible of attainment by clear heads and valiant hearts.

From a very early age Smith had manifested a strong predilection for the sea; but finding it impossible to immediately gratify this inclination, he availed himself of an opportunity that presented itself of quitting, without leave asked, his master's service, and accompanied a Mr. Bertie to Paris. His first leap in the dark into the turbid currents of the world was a discouraging one—would at least have been so, to a less resolute spirit. He could find no suitable occupation, and after about two months left the French capital on foot, and with very little money in his purse. He appears, however, to have possessed a remarkable power of interesting strangers in his favor. At Paris, a Mr. David Hume, a progenitor, possibly, of the author of the well-known romance of English history, gave him letters of introduction to influential persons in Scotland. These he did not attempt to make use of for some years subsequently. In the interim, having first acquired the rudiments of soldiership at Havre de Grâce, he found his way to the Low Countries. Four years' profitable fighting in the wars raging there, though the details have not reached posterity, made him a reputation for gallantry sufficiently marked to induce his townsfolk to give him uproarious welcome, when, after a fruitless effort to utilize Mr. Hume's letters at the Scottish court, he reappeared in Willoughby. Soon tiring of feasts and flattery, John Smith suddenly betook himself, accompanied by one servant, to aylvan opening, far away from towns, encir-

led by hundreds of acres of forest, thickly deer-peopled; and there, on the brink of a clear rivulet, built himself a habitat with branches of trees, slept in his clothes, and fed upon venison washed down with Adam's ale, with which venison it was the sole occupation of his man-servant to victual the establishment. Smith's motive for adopting such a singular mode of life was to perfect himself in the sciences of war and ethics, to which ends he diligently studied Marcus Aurelius and Machiavelli's famous work, and constantly exercised himself on horseback with lance and ring. The romantic life of the young soldier soon became the theme of wondering gossip in the sparsely-scattered neighborhood. Amongst others, the Earl of Lincoln sought him out, and was so charmed with his spirit and manners, that he introduced him to an Italian nobleman of the name of Palaloga, and his (the Earl's) Master of Horse, with a view to perfect his *protégé* in his *manège*. Smith did not need much instruction in that particular, but was so pleased with the conversation of his new friend, that, more fully to enjoy it, and winter, moreover, being close at hand, he left his forest dwelling, and took up his abode at Tattersall.

Conversation, however refined and instructive, could not long suffice for such a restless spirit as Smith. He longed for action—action! and finally determined upon setting out, *via* France, for Hungary, where Christians and Turks, champions of Crescent and Cross, were engaged in deadly conflict. He embarked for St. Malo; but the vessel, through stress of weather, brought up and anchored off the shallow inlet of St. Valéry-sur-Somme, where the destined founder of Virginia came to, it seemed for some time, irreparable grief, after a fashion which proved that, however much he might have profited by the study of Marcus Aurelius, the crafty precepts of the Florentine had not borne congenial fruit in his mind.

On board the ship were four French adventurers, who, seeing he possessed a rich wardrobe, successfully plotted how to possess themselves thereof, as well as of other valuables that might be packed up with the luggage belonging to the free-spoken, unsuspicious English soldier. To effect their purpose, one pretended to be a French nobleman, the others the great man's servitors. The nobleman—a penniless scamp of the name of Carson—listened

with enthusiastic sympathy to Smith's schemes for winning renown as a devoted champion of the Cross, and readily engaged to introduce the aspiring young hero to a duchess, an intimate friend, whose husband happened luckily to be a General in the Christian army of Hungary. Smith was delighted, and accepted the offer of the nobleman and attendants to convey his luggage on shore, he remaining in the ship to settle some business matter with the captain, who appears to have been leagued with the robbers. Be this as it may, Smith found, on going ashore, that nobleman, attendants, and luggage had vanished; and all the knowledge he could obtain of the possible whereabouts of the villains was, that they might, perchance, be met with somewhere in the neighborhood of Mortagne, where the relatives of one or more of them resided.

Smith was in a woeful plight, though he met with much charitable assistance, notably from the prior of the great abbey of St. Stephen, Caen, and a wealthy French farmer, who, finding him lying under a tree in a state of exhaustion for lack of food, carried him to his own dwelling, treated him with great kindness, and sent him on his way with money in his purse. Smith journeyed along the sea-coast, in the hope of finding some vessel bound for a port as near as might be to the seat of war in Hungary. Unsuccessful in that, fortune made some amends by presenting a chance which warmed the sickness at his heart of hope deferred, with a fierce joy. Near Dinan he chanced to fall in with the robber Carson. Both wore swords. Smith, eager as flame, instantly attacked his enemy, and, after a for some time doubtful duel, slew him.

Ultimately Smith reached Marseilles, and, as better might not be, embarked for Italy in a vessel filled with pilgrims bound for the sacred shrine of Our Lady of Loretto. Now, Smith being an ardent supporter of the "new opinions," fluent in sarcastic speech—provoked, moreover, by the abuse of the pious passengers, who cursed him and his sovereign (Elizabeth) for Huguenots, and the English nation for pirates—one can readily believe he was not sparing of gibe and taunt anent the monstrous imposture of the shrine to which those foolish pilgrims were bearing gifts, in the fond belief that the house at Loretto, being the identical house in which the Virgin Mary lived and died, and which,

at her death—assumption rather—was borne through the air by angels to its final resting-place—gifts offered there would meet with a richer return than if presented at less hallowed altars. To such a frenzy of rage did he at last work the Loretto worshipers, that they resolved to pitch the sacrilegious heretic overboard; and did it, too, though, with commendable moderation, so near a small island used as pasture-ground for goats and cattle, that he easily reached it by swimming.

Two or three days afterward, a two-masted ship, hailing from St. Malo, commanded by Jean La Roche, cast anchor, during a violent storm, under the lee of the island. Smith contrived to get himself taken on board; and, finding that La Roche was acquainted with persons he himself had known in Brittany, related his fortunes—misfortunes, rather—and met with good entertainment. La Roche, a sort of privateer-pirate, saw at once that he had got the right man in the right place; and a bargain was without difficulty struck between the two adventurers.

The Mediterranean was swept in all directions; its shores hugged, and sometimes touched at many points, without success; till one fine day a Venetian ship was descried near the entrance to the Adriatic. The Republic was fortunately at war with France, (it might not have much signified had that not been the case,) and no scruple was consequently felt in attacking the rich argosy. The fight was a well-contested, bloody one—the Breton losing fifteen men—in which battle John Smith well vindicated the judgment of La Roche in admitting him to a qualified partnership. The victory was at last won; then—pleasure after business, or business after pleasure, which you please—came the fruits of victory. "The silks, velvets, cloth of gold and tissue, pyasters, chicquins, and sultanas—which is gold and silver—they unloaded in four hours was wonderful; whereof, having sufficient, and tired with toils, they cast her off with her company."

John Smith's share of plunder amounted to five hundred zechins (sequins?) besides a box containing five hundred more, which—an apocryphal mode of conveyance, it strikes me—he says "God sent him." Smith took leave of La Roche at Antibes.

John Smith, I must admit, falls terribly in one's estimation, as he walks off with

those thousand sequins so obtained—England was certainly not at war with the City of the Sea—and, forgetful of the terrible struggle in Hungary, goes holiday-making at Rome, “where it was his chance to see Pope Clement VI., with many cardinals, creep up the sacred stairs—which, it is said, are those our Savior went up to Pontius Pilate—where blood falling from his head pricked with the crown of thorns, the drops are marked with nails of gold. Upon them none dare go but in that manner, saying so many Ave-Marias and Pater-Nosters, as in their devotions. On each side is a pair of such-like stairs, up which you may go standing or kneeling, but divided from the holy stairs by two walls. Right against these is a chapel, where hangs a silver lamp, which burneth continually; and they say the oil neither increaseth nor diminisheth.”

The sequins are gone at last—thanks be for it—except so many as will enable John Smith to embark at Venice for Ragusa, and thence journey as he best may to Gratz, Styria, where he succeeds in entering the military service of the Duke of Austria. Once in the right groove, there could be no fear of his steady advancement. He invented fireworks—fiery-dragons, so called—fastened to the bellies of various animals, which, driven at night into the ranks of the Osmanli, created a terrible panic in the ranks of the unbelieving cavalry—a service that, with others, (the invention of military telegraphs for one,) obtained for John Smith the grade of Captain.

The hotter spirits of the opposing hosts before Regal, becoming impatient of the laborious preparations making on both sides for a battle *selon les règles*—an illustration of *la grande guerre* upon an imposing scale—and desirous, moreover, of amusing the ladies, who were anxious “to see some court pastime,” suggested that the pastime required should consist of single combats on horseback, between Moslem and Christian champions, in view of both armies and the habitants of Regal.

A Moslem officer, one Turbisha, sent the first formal challenge, to meet whom fell by lot to Captain Smith. The Moslem came forth to battle in magnificent array, heralded by martial music, well mounted and armed. On his shoulders were enormous wing-epaulettes, compact-

ed of eagles’ feathers, and glittering with silver, gold, and precious stones.

Now came into play Smith’s practice at his forest-home, Lincolnshire, at lance and ring. The western champion galloped full tilt at the cumbrously made-up Moslem, pierced him through the head at the first stroke, decapitated the corpse, rode off therewith in triumph, and presented the same to the Lord-General, by whom it was graciously received.

The Osmanli were not to be discouraged by one mishap. A second challenge came, especially directed to Smith—eagerly accepted, of course; and again the English soldier of fortune won a facile victory.

The third challenger was Smith himself, who dispatched a fantastic message to the Turkish dames, to the effect that they might receive back the two Turks’ heads, with his own to boot, if they had a champion in their army capable of fetching them. A warrior, on whom Captain Smith bestows the *sobriquet* of Bonomalgro, accepts the adventure, but stipulated that the weapons should be swords and battle-axes—that the fatal lance in Smith’s hands should not be used. This was a desperate fight; but, after a prolonged and doubtful conflict, Captain Smith added a third head to his bloody trophies, in requital of which exploit the Duke Sigismund accorded him the privilege of quartering three Turks’ heads on his shield, bestowed upon him his portrait set in jewels, and a considerable pension for life.

This was the culminating point in Smith’s knight-errant fortunes. At the “dismal battle of Rottenton,” he was left for dead upon the fatal field, where, he says, were slain, “in defense of Christ and his Gospel,” many valiant Englishmen—amongst them Baskerville, Hardwicke, Milner, Molyneux, Davison, and one John-a-Scot.

Captain Smith’s armor and general appearance being those of a knight of high degree, his life was spared, in the hope that he would bring a rich ransom. That hope not being fulfilled, Captain John Smith, hero of the Regal tournaments and other glittering glories, was consigned to the Adrianople slave-market, and marched thither in a chain-gang of some twenty equally chap-fallen champions of Christendom. His aspect and bearing—bolder, haughtier, when low and fallen from a high, than in his days of recog-

nized superiority and triumph—suggested to Bashaw, or Pasha Bogall, who chanced to inspect the slave stock, that he (the Bashaw) having returned from the wars without visible trophies of successful valor, might enhance his fighting reputation with his young and beautiful first wife, Charatza Tragabigzanda, (I much doubt the correctness of Captain John Smith's Turkish and Tartar orthography, by the way,) by purchasing the Christian knight, and presenting him to his bride as a great Bohemian lord whom he, Bogall, had vanquished and made captive in battle.

The purchase was easily effected; but the fair Tragabigzanda, being skeptical, for reasons of her own, anent the uxorious Bashaw's valor, questioned the handsome slave; and being able to converse with tolerable fluency in Latin, she made herself acquainted, not only with the mode of his capture by her husband, but with the whole story of his life, which so interested her, that she determined upon sending him forthwith to her brother, Tymner Bashaw, in Tartary, "there to learn the language—what it was to be a Turk—till time should make him master of herself."

One potent reason for this prompt action on the susceptible lady's part was, that her mother, an unpleasantly inquisitive lady, had become apprehensive of the possible consequences of her daughter's frequent colloquies with the Bohemian lord, and was meditating how, in the interest of Turkish domesticity, she could without noise and scandal seize poor Smith, and reconsign him to the common slave-mart. The gentle, loving Tragabigzanda, to prevent such a lamentable catastrophe, dispatched Captain Smith under escort to Crim-Tartary, with a message to her Bashaw brother, enjoining him to treat the illustrious captive with kindness and consideration.

I have a strong suspicion that a message of quite another character must have been sent at the same time to Bashaw Nalbritz by his mother. Be that as it may, Captain Smith, who had fondly based "his hope of deliverance upon the love of Tragabigzanda," found that that love—or more exactly rageful resentment that he, a Christian dog, should have inspired a Turkish dame of high degree with such a sentiment—conferred upon him the favor of an iron neck-collar, hair-cloth shirt, the office of slave to the other slaves, and a

diet of soup, of which the main ingredient was horse-gut! If the savage Bashaw had known Captain John Smith, of Wiltoughby, Lincolnshire, and Regal, Transylvania, as well as the reader does, he would hardly have trusted himself within reaching-aim of that individual, in a field at a long distance from any human habitation, themselves only being present. He, unknowing, was rash enough to do so; and Captain Smith with his thrashing-bat, after a few angry *pour-parlers*, smashed the Bashaw's brains. He then stripped the dead tyrant; appropriated his clothes, his horse, as much corn as he could carry; and, having hidden the body under straw, rode off into the desert.

Finally, and after terrible sufferings, Captain John Smith reached a Christian outpost on the Don. Here, again, a great lady—Callamata he names her—regarded him with gracious favor, and furnished him with the means of reaching Hermanstadt, Transylvania. "Received there with much hospitality and gratulation," he proceeded on to Bohemia, where he fell in with Duke Sigismund, who presented him with fifteen hundred golden ducats—a commutation, probably, of his pension.

Of his subsequent desultory wanderings through France and Spain, his visit to Morocco, inclusive of a brief essay at buccaneering, we need not dwell in these pages. In the fourth year of the seventeenth century—he being then only twenty-five years of age—John Smith again set foot in Enland; and soon, from that great vantage-ground, sprang to the full hight of a true hero.

## PART II.

### HERO AND STATESMAN.

Captain John Smith, soon becoming tired of "rusting his life away," associated himself with a number of gentlemen who were projecting a scheme for conveying a body of colonists to Virginia, in the hope of realizing, in that one respect at least, the dazzling dreams of Raleigh.

Many precious months were wasted in obtaining the indispensable letters patent; and when that was accomplished, the royal red-tapist, James I.—Disraeli the elder's second Solomon—whose "king craft" was mainly made up of small contrivances to hamper the free action of his subjects—ma-



naged at the very outset to sow the seeds of strife and confusion in, it must be admitted, a congenial soil, by sealing up in a box, not to be opened till the adventurers had actually reached the promised land, the names of the men who were to form the Supreme Council of the colony—Wingfield, Newport, Gosnell, Ratcliffe, Martin, Kendall, and John Smith—all, except Smith, found to be, when occasion tested, knaves or fools, with a strong dash of ruffianism and cowardice. "Mostly atheists," writes Captain Smith; and perhaps, with the exception of himself and Mr. Hunt, a Puritan preacher zealous unto death, there was scarcely one amongst them endowed with the earnest will, the indomitable courage, which, not to be dismayed, discouraged, overcome, makes of Difficulty a great helper, and, sternly struggling against mightiest odds, holds the fleet angel fast until he bless him.

It consequently happened, owing to the sealed-box contrivance, that when, on the nineteenth of December, 1606, the expedition, in three ships, numbering about one hundred and fifty men, sailed, no one was invested with officially-recognized authority to control the heterogeneous assemblage. Hence anarchy, confusion, distracted councils, at the very outset. Finally, after many mishaps, Virginia was reached. By about the middle of May, the site of Jamestown, on the Potomac, was determined upon, and the colonists went busily to the task of making themselves a home in the wilderness, in the midst of wondering, surprised, fearful hosts of savages. Wingfield was elected first President, and Captain John Smith excluded by a majority from the council. His towering superiority wounded their self-love; but whenever danger threatened—and danger of massacre or of famine was ever present or close at hand during the first years of the colony—the man to whom all eyes were turned was Captain John Smith; and nobly the great man proved his title to the instinctive confidence he inspired.

It is not my purpose, nor have I space, to describe the shifts, the expedients, the daring acts of bravery, by which, through good report and evil report, Captain Smith more than supplied the deficiencies and foiled the treasons of men placed in authority over the struggling colonists. It will suffice to quote the unimpeachable testimony offered to his great qualities by Bancroft, the historian of America:

"Captain John Smith merits to be called the father of the colony which he repeatedly rescued from destruction. His judgment was ever clear in the midst of general despondency. He united the highest spirit of adventure with consummate powers of action. His courage and self-possession accomplished what others esteemed desperate. Fruitful in expedients, he was prompt in execution. Though he had been harassed by the persecutions of malignant envy, he never retained the memory of the faults of his enemies. He was accustomed to lead, not to send his men into danger—could suffer want rather than borrow, and starve sooner than not pay. There was nothing counterfeit in his nature, which was open, honest, and sincere. He clearly discerned that it was the true interest of England not to seek in Virginia for gold and sudden wealth, but to enforce regular industry. Nothing was to be expected there but by labor."

High praise, and amply earned! A genuine hero—a warrior of the working day—was Captain John Smith; and so successful had he worked during three changeful, trying years, that when, in 1609, he was superseded in his governorship, to which the almost unanimous suffrages of his fellow-citizens had raised him, by the nominee of twenty-one peers, ninety-eight knights and countless squires, who had clubbed to purchase a second charter from King James, the young, firmly-planted colony was possessed of four ships, seven boats, a well-fortified town, (as against Indians,) nets for fishing, tools of all sorts, a harvest safely garnered, six hundred swine, and as many horses, goats, and sheep. Thus, by the energy and sound sense of one man, of whom his country may well be proud, the foundation was securely laid of a State in extent as large as France, of which the world-famous city of Washington is now the capital. Let me add that, before John Smith died—and he died young (fifty-two years of age only)—Virginia was covered with rich plantations, of which the exported produce freighted two hundred ships.

Dismissing, then, the political and economic portion of Captain John Smith's American career with a brief memorandum that he discovered and explored Chesapeake Bay, and at a subsequent visit to the New World, in 1615, searched and described Massachusetts Bay—upon the shore of which the Pilgrim Fathers some six years afterward landed and commenced building New Plymouth—I revert to a singularly interesting episode, so to speak, in that career of which "the

beautiful salvage and Indian princess," Pocahontas, is the heroine.

In his ceaseless efforts to conciliate and "trade" with the Indians, giving, in exchange for corn, venison, etc., beads, hatchets, and copper, Captain Smith frequently ascended the river upon which Jamestown was being built. The first time he did so, Captain Smith, after a laborious voyage of a week's duration, came to a group of islands (now Gloucester county, in York River,) to which he gave the name of Powhatan, as being that of the tribe inhabiting them, and of its chief.

Nothing of moment occurred at that time; but not long afterwards, the Indians having ceased to bring in provisions, Captain Smith was necessitated to trade *bon gré, mal gré*, with them. To that end he left Jamestown, and proceeded in a well-armed pinnace to a cluster of wigwams called Kecoughtan. Finding, after much tedious negotiation, that nothing was to be obtained by way of barter, Captain Smith landed his men, and frightened away the Indians by the discharge of muskets in the air. The huts were found to be full of corn, and the English were preparing to help themselves, when the savages, having painted themselves in very terrible guise, returned, armed with clubs, bows and arrows, and bearing a hideous idol before them. It then became necessary to fire upon the poor wretches in earnest. Many of the Indians fell at the first discharge, and the rest fled howling, leaving their god behind. That, however, being an irreparable loss, involving the very existence of their tribe, a deputation soon appeared, offering in exchange for their idol any amount of provisions. The offer was acceded to, upon condition that they should help to load the pinnace, which accordingly returned to Jamestown laden with corn, venison, fowls, and turkeys.

This adventure would seem to have inspired Captain Smith either with unbounded contempt for, or a careless confidence in, the placable disposition of, the natives. During his next ascent of the river he left the pinnace, and taking with him only two men, and an Indian as guide, he went on shore in search of game, and soon found himself assailed by over two hundred yelling savages. The two Englishmen with him were killed—he himself was overpowered, taken prisoner, and conducted in triumph to an Indian village on the Rappahannock. Smith's presence of mind

and fertility of resource did not desert him even in this extremity. He contrived to interest the chief by the exhibition of a pocket-compass, and by "endowing a leaf of his pocket-book with intelligence by writing thereon." They had often heard of the famous Pale-face, and the calm courteousness of their captive so amazed them, that they spent three days in incantations, with the view of discovering the mystery of his character. Not successful in that, his fate was referred to the Supreme Chief, Powhatan, by whom he was sentenced to be first fattened, then killed, and eaten at a solemn feast.

Captain Smith appears not to have taken on flesh very rapidly; but being at last pronounced to be in fit condition, the ceremonies began. Her Majesty the Queen, Powhatan's wife, presented him water to wash with; another amiable lady, with a bunch of feathers to serve as napkin; and he was then invited to quite a sumptuous banquet, which, however, he declined, "not having stomach to eat, being himself about to be eaten."

The next ceremony that was to end his strange, eventful history was forcing his head down upon a flat-stone preparatory to three chiefs battering his brains out with heavy clubs.

At that moment Pocahontas, a girl of about twelve years of age, and favorite daughter of Powhatan, unable to resist the impulse of a gentle, compassionate heart, rushed forward, and, with piteous entreaties, implored that his life should be spared. Her prayers were unavailing; and, as a last resource, she placed her own head upon the captive's, and declared they should kill her before they did the Pale-face. This prevailed. Powhatan pardoned the captive, accepted him as his son-in-law, and promised a large tract of land. In the meanwhile Captain Smith, it was agreed, should be sent to Jamestown, upon condition that he would promise to send Powhatan two cannons and a grindstone.

At that time the English were reduced to great extremity by scarcity of food. Pocahontas caused supplies to be sent them, and was ever afterwards their constant friend and watchful guardian. She traversed woods alone and at night to warn Captain Smith of a meditated attack by her tribe, and to her he ascribes the preservation of the nascent colony from famine and ruin.

So confident did Captain Smith feel in the protection of the beautiful Indian girl, that he determined, when the relations between Powhatan and the settlers were far from amicable, to undertake an embassy to that powerful Chief, attended by only four men. In passing with them through the wilderness, and across the river in an Indian canoe, they came to a fertile, beautiful plain, where, wearied with travel, they lay down to rest, to be presently startled from repose by multitudinous war-whoops from the surrounding woods, as if all the warriors of Powhatan's tribe were about to assail them. There was no cause for alarm. The savage yellings ceased, and Pocahontas came running over the plain with several girl companions. She assured Capt. Smith that no harm was intended; and in corroboration of that assurance, thirty Indian girls, garlanded with green leaves, issued from the forest, and came tripping towards the strangers, round whom they sang, and danced to a wild melody, and in fantastic measure, for more than an hour. At the end, they again plunged into the woods. Soon Pocahontas, with others, returned and invited Captain Smith to visit Powhatan. He readily complied, was received at the village with great honor, and entertained at an *al fresco* banquet by torch-light, which the Captain and his companions very much enjoyed, the pleasure thereof being greatly enhanced by the Indian girls, who, whilst dancing, singing, and waiting upon the pale-faces, continually ejaculated in their own, the Mohican tongue, "Love you not me? Love you not me?" which Captain Smith understood to be their usual mode of welcome.

After Captain Smith left the colony, in 1609, nothing was heard for more than two years of Pocahontas, during which period there was almost continuous war between the Indians and settlers. The

beautiful savage being at last made prisoner, peace in consequence was speedily restored. She, however, continued to principally abide at Jamestown, acquired the English language, was converted to Christianity, and baptized Rebecca by the Rev. Mr. Rolfe, who thereupon married the Virginian Princess, and soon afterwards sailed with her for England.

Her royal rank did not procure her the *entrée* of the English Court, and Captain Smith's petition to the Queen that she might be allowed a pension suitable to her rank and the great services she had rendered the colony in Virginia was not noticed—two circumstances which Pocahontas bitterly resented.

The Virginian Princess, nevertheless, soon became the lion—or should it be lioness?—of the season. Lord and Lady Delaware dragged her through fashionable entertainments innumerable, and she was finally received at the Palace. Better to have remained—ill-starred Princess!—in her father's forest-court. She died at Gravesend in 1619, aged twenty-three, when about to embark with her husband for Virginia. Death in the flush of youth, in a strange land, amongst strangers! Poor Pocahontas! Her child, Thomas Rolfe, received his education at Plymouth at the cost of Sir Thomas Stukely; and it is said—I know not with what truth—that a living ex-Lord Chancellor may, or might, trace his pedigree up to the daughter of Powhatan.

Many other adventures befell Captain John Smith—such as encounters with Algerine pirates and French privateers, during an attempted voyage to New-England; but such comparatively minor matters may be passed over in a life, the unsullied glory of which is embodied in the simple epitaph, "*Hic jacet* Captain John Smith, the Founder of Virginia."

Captain Smith died on the twenty-first June, 1631, at Willoughby, aged fifty-two.

From Chambers's Journal.

## WIND THE VITAL CURRENT OF THE WORLD.

ALL true power is simple in its grandeur, and grand in its simplicity; this is especially the case with Nature in all her workings: she moves not with sudden start, but with calm progression. Even when she seems most perturbed, her agitation is but the disguise of her order.

There is none of the forces that rule the material world which appears so arbitrary and uncertain as the wind that bloweth where it listeth; yet is there none more clearly subject to fixed laws, or more beautifully dependent upon settled causes. Whether it be the tornado uprooting the forest, the zephyr just stirring the leaves, the simoom of the desert, or the monsoon of the ocean, all wind is the result of agencies directly traceable to their sources. It does not disturb the harmony of creation—it preserves it.

There are two properties of air which combine in producing wind—its capability of expansion by heat, and its elasticity. Air is not heated at the top by the rays of the sun; they pass through it with very little effect. But when they meet and are stopped by the earth, they heat the earth so much that the air immediately over its surface becomes much hotter than that above. Now, because hot air must expand, the heated portion rises to the top, overflowing the colder air around it; but this creates a diminished density below, and the surrounding cold air, by its own elasticity, rushes in to supply the deficiency. Thus is caused wind: an *inward* rush of cold air below, an *outward* rush of warm air above.

This may be illustrated and proved by the following simple experiment. Light a fire in one of two rooms having a door of communication between them. When the room has become warm, open the door, and hold a lighted candle in the doorway. It will be found that, on holding the candle near the floor, the flame will be strongly drawn toward the heated room by the incoming current of cold air, while near the ceiling it will be driven toward the

cold room by the outgoing current of hot air. In the middle, at the point exactly between the two currents, the flame will be almost stationary.

The power of the sun to heat the earth is, of course, greater in places under its vertical than under its oblique rays. At the equator, therefore, the air is always rising from its heat; consequently, the cold air of the poles is continually rushing each way toward the equator, along the surface of the earth, while at the top of the atmosphere the hot air of the equator is constantly rushing toward the poles.

The question naturally arises here—How comes it to pass, then, that the winds in our own country and the temperate zones generally, blow often from the equator toward the poles? The reason is simple. The overflowing current of hot air from the equator becomes cooled in traveling through space; by the time it reaches the thirtieth parallel of latitude in either hemisphere, or thereabouts, it is colder than the current rolling in the opposite direction below, the tendency of which is, of course, to get warmer in its progress; accordingly, the currents change places, and that which was the upper becomes the under, with a contrary movement. About the polar circle, their relative position is again changed by like causes, and the air which was uppermost at the equator resumes its place above. Warm air from all points converges and descends upon the poles, the cold air of which sinks and spreads in every direction, giving rise to the polar gales common in high latitudes; so that at the poles there is a constantly descending current of hot air, while at the equator there is a constantly ascending stream.

So far as we have gone at present, we have accounted only for winds to and from the equator and poles—that is, for north and south winds. What, then, occasions easterly and westerly winds?

These arise from the influence of a totally different force—namely, the earth's



rotation on its axis. The earth is constantly rolling round from west to east with great velocity. As the earth is spherical, this velocity gradually decreases from the equator, where the speed is greatest, to the poles, at which it is nothing. Now, when the cold air is driven toward the equator in the manner before explained, it receives no increase of momentum eastward, and, therefore, the nearer it gets to the equator, the more it is left behind in the west by the quicker advance eastward of the earth's surface there; hence its current becomes a north-east or south-east wind. The westerly winds are the converse of this. The hot air rolling from the equator toward the poles with a strong easterly direction, gets far in advance of the more slowly moving earth there, and blows more and more from the west.

Such is an outline of the general laws which rule the course of the wind. By their operation, a constant and wonderful circulation of currents is kept up in the atmosphere, purifying and regulating its temperature. Just as in the human body the life-blood travels through every part, giving vitality and strength to the whole, so the air, which may be truly called the vital current of the world, is in constant motion. It visits every clime, to bless mankind with health and energy, to roll the clouds of heaven, bringing the showers that raise the blossoms of spring and the fruits of autumn, and to waft from shore to shore ships laden with the riches of the earth.

These general laws are nevertheless subject to many modifying influences, such as screening clouds and the difference of seasons, which decrease the heating power of the sun on the earth, and vary the relative warmth of the currents in different places. The unequal and irregular distribution of land and water also exerts a dis-

turbing influence; for the surface of the earth becomes much more rapidly heated than that of the sea, and cools much more quickly. Thus the presence of large continents or oceans affects the direction of the wind.

To this last influence is due the refreshing sea-breeze, so ardently longed for by those condemned to remain in London during the dog-days. On a hot day, the air over the sea is much cooler than that on land, and so there blows a delicious breeze from sea to shore; but, as land cools more quickly than water, after sunset the land-breeze blows, from shore to sea. This may be easily understood and illustrated by placing a saucer of warm water, to represent land, in a dish of cold, to represent sea. The flame or smoke of a candle will be blown from every side toward the saucer by a mimic sea-breeze. If you fill the dish with warm, and the saucer with cold water, an exactly opposite effect will be produced, corresponding to the land-breeze.

The great subject of wind has been but just glanced at here; a volume might be written upon what is known concerning it, and much remains to be discovered as to the causes of whirlwinds, hurricanes, and storms of all kinds, as well as of various local winds, confined to certain countries or parallels of latitude. Many interesting fields of inquiry lie open to the student, and many ardent votaries of science are eagerly exploring them; but from every fresh discovery we learn again the old lesson with which we set out, that Nature, even in her wildest mood, works in harmony. It was this lesson which the poetic imagination of the old Greeks taught by their legends of the music of the spheres; and every investigation from their days to ours has confirmed it to the seekers after wisdom.

ARCHÆOLOGISTS interested in Greece have just had a new sensation in the discovery at Athens, by an English architect, of the ancient theatre of Bacchus, on the southern slope of the Acropolis.

LOPE DE VEGA, in describing an afflicted shepherdess weeping by the seaside, says that the sea joyfully advanced to gather her tears, and that, after having inclosed them in shells, converted them into pearls.

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PERFECTION.—A gallant youth was examining some flowers in a garden, when a beautiful girl, who was one of the party, exclaimed: "O sir! this pea will never come to perfection!" "Permit me, then," gently taking her by the hand, and walking toward the plant, "to lead perfection to the pea."

Who is the most popular military commander? Martial Ardur.

From Bentley's Miscellany.

# D R E A M L A N D .

It was a conception worthy of a true poet to show the depth of his sympathy for the Great Masters of English Song, by devoting the outpourings of his Muse to their special illustration, after the manner which Mr. Kent has chosen.\* Tracking their footsteps through their own familiar haunts, and conjuring up associations inseparably allied to their memories, he has, he says, in his modest, reverential preface, "striven to unite, upon each occasion, within the framework of a single picture, some shadowy reflection at least of the contrasting yet harmonious interests derivable from the charms of Biography and Topography."

This pleasant task has been happily accomplished; for there is not one of the many pictures here collected which is not perfect in all its parts—whether we consider the sentiment by which it is inspired, the truth of the local color, or the beauty of the setting. With a thorough appreciation of character, Mr. Kent combines an admirable descriptive power, and a masterly command of most mellifluous verse, so that, while the mind is fully gratified, the senses—so to speak—are equally charmed. In the course of his picturesque pilgrimages, the shrines of twenty of our most famous poets are visited, and a wreath worthy of the image is placed at the feet of each. The general nature of these votive offerings may be gathered from the following enumeration. First we have "Shakspeare at Shottery," where he first told his love under the trellised porch of Anne Hathaway's cottage. Then comes "Chaucer at Woodstock," where he, who has been likened to "the morning-star," sits dreaming of the immortal *cortège* that wended from Southwark to Canterbury. To him follow in succession, "Surrey at Windsor"—"Spenser at Kilcolman"—"Milton at Cripplegate"—"Butler at

Earlscreomb"—"Dryden at Soho"—"Pope at Twickenham"—"Young at Welwyn"—"Thomson at Richmond"—"Shenstone at the Leasowes"—"Falconer at Sea"—"Johnson at Streatham"—"Goldsmith at Edgeware"—"Burns at Mossgiel"—"Cowper at Olney"—"Byron at Newstead"—"Shelley at Marlow"—"Scott at Abbotsford;" and, lastly, "Wordsworth at Rydal." In this list there are omissions which will, at once, strike everybody; but, as the French proverb says, "What is deferred is not lost," and we hope, before long, to find that Mr. Kent has given us such as are yet wanting to render the British galaxy complete.

Of the treatment of his various subjects, Mr. Kent says: "Sometimes, as in the limnings of Chaucer and Scott, I have surrounded them with the shadowy forms of the creatures born of their imagination. Sometimes I have contented myself with celebrating a single incident, selected from the pathetic record of the career then under commemoration; as where Pope is described awaiting, in the unwonted solitude of his home at Twickenham, the arrival of the friendly portait-painter, summoned to perpetuate with his pencil the angelic grace of age still lingering upon the features of the dead mother then lying upstairs in the darkened death-chamber; or as again, where Lord Byron is seen with the boxing-gloves yet upon his hands, suddenly interrupted in a bout with one of his wild companions, gazing for a moment with sullen anguish after the funeral cavalcade bearing to the grave the remains of *his* mother, unwept and almost unattended. Occasionally, moreover, as in the instances of Surrey and Spenser, I have opened up to view in dim perspective the checkered vista of the musing poet's life."

We have selected, as our first example of Mr. Kent's method, the striking contrast between the "reverent sorrow" of Pope and the "sullen anguish" of Byron.

\* *Dreamland*. With other Poems. By W. CHARLES KENT. Longman & Co.

## POPE AT TWICKENHAM.

Why sits that silent watcher there,  
Still brooding with that face of care—  
That gaze of tearless pain?  
What bonds of woe his spirit bind—  
What treasure lost can leave behind  
But stings within his brain?

He dreams of one who lies above,  
He never more in life can love—  
That mother newly dead:  
He waits the artist friend whose skill  
Shall catch the angel-beauty still  
Upon her features spread!

A reverent sorrow fills the air,  
And makes a throne of grief the chair  
Where filial genius mourns:  
Death proving still, at direst need,  
Life's scepter wand—a broken reed,  
Love's wreath—a crown of thorns!

## BYRON AT NEWSTEAD.

Strange memories of dead childhood throng  
That void heart yearning o'er the past;  
For thoughts less dark than sad belong  
To strife that can not last—  
When, quenched with Life's invested brand,  
Run out with Time's swift gliding sand,  
Expires the wrath of angry years:  
Alone before a lonely tomb  
Remorseful love blends grief with gloom,  
A sullen grief too harsh for tears.

One moment on the threshold there,  
With clenched hands strung for sportive  
blows,  
No prescience his of after care,  
Of glory, or of woe—  
He thinks not of his new-born fame  
Presaging an eternal name  
Upon Earth's grand poetic scroll,  
But here all childhood's joys have flown,  
How by his hearth he broods alone,  
And tears unshed flood o'er his soul.

The interior of Abbotsford is sketched  
to the life. We would willingly give the  
whole description, but must content our-  
selves with a few passages:

Within a noble Gothic room,  
Adorned by many a casque and plume,  
A homely form with tranquil air,  
Sits musing in an antique chair.

Stretched on the hearth before his feet  
Lie basking in the grateful heat  
Two shaggy deer-hounds, grim and gaunt,  
Their life's delight his steps to haunt.  
Around on oaken panels hung  
The sword unsheathed, the bow unstrung,  
The dinted target, the rusty mail,  
Reveal what memories here prevail:

There, 'twixt the mullioned casements, bright  
With sidelong gleams of silvering light,  
Erect in somber nook disposed,  
The warrior-knight with visor closed!  
Above, what once were blazoned flags,  
Mere splintered shafts and tarnished rags!  
While strewn o'er table, stool, and floor,  
Lie littered heaps of student lore—  
Rare tomes in sallow parchment skin,  
Dry husk without, sweet core within:  
With varied volumes scattered round  
Morocco pied, or calf embrowned:  
Battalions of like thought-born elves  
Ranged trimly on the laden shelves—  
The genius of the mighty dead  
O'er all the magic pages spread.

We must leave an exquisite picture un-  
finished to exhibit the truthful portrait of  
the bard of Rydal.

A gaunt, tall shape, without one touch of  
grace;  
A simple, sentient, patriarchal face:  
Meek eyes, that view all life with looks of  
peace;  
Grave lips, whose smiles are blessing of in-  
crease.  
A dark coat buttoned o'er his Quaker vest;  
His knitted hands on calm crossed knees at  
rest;  
His silvery locks, on saddened brows reveal-  
ed,  
No more beneath the ungainly hat concealed,  
Now placed beside his large, loose-jointed  
feet—  
He sits and thinks in this dear home retreat.  
Here sits and broods on Earth's neglected  
things—  
The merest midge on gauzy, fragile wings;  
The atom pollen, floating from the bloom—  
Dust-seed of flower-dye, verdure and per-  
fume;  
The wayside boulder, flicked with lichen  
stains,  
Like "frozen dreams" on wintry lattice  
panes;  
The gnat's far bugle sounding by his ear;  
The clinking scythe-hone heard across the  
mere;  
Sweet zephyrs blown through new-mown  
meadow hay  
Past thymy barrow and faint fading may,  
His mind the microscopic lens that shows  
The hidden charms its crystal depths dis-  
close—  
Such are the sights, the sounds, the scents  
that stir  
His thrilling heart-string like a dulcimer  
With hushed vibrations latent in its chords,  
Waking to music in melodious words!

Have we not quoted enough from Mr.  
Kent's attractive volume to justify our  
praise?

From Chambers's Journal.

## THE SUN'S ATMOSPHERE.

WHEN Newton discovered, in 1701, that a ray of light from the sun, admitted into a dark room, through a small circular aperture, and passing through a prism, produced an image colored with the hues of the rainbow, he little thought that he was furnishing to the scientific men of a succeeding age, not only the most delicate test of the presence of certain metals in bodies subjected to analysis, but also the means of investigating, with at any rate some probability of success, the composition and nature of bodies apparently quite beyond the reach of human science.

For upward of a century, scientific minds appear to have been content to allow Newton's discovery to remain stationary at the point at which he left it; and it was only in 1802 that it was observed that if the *solar spectrum*, or colored image resulting from the passage of a ray of sunlight through a prism, was taken from a ray passing into the room through a slit in the shutter, instead of through a circular aperture, it was crossed by innumerable black lines, in place of being a continuous stripe of colored light. Some years later, a map of some six hundred of these lines was published, and, more recently still, one in which upward of two thousand are marked. An examination of the spectra produced by rays proceeding from the stars, planets, and other sources of light, proved that lines exist in the spectra produced by lights of all kinds, but that these lines differ in number and position according to the source of light employed, while at the same time any one luminous body will invariably produce the same lines in the spectrum.

It had been remarked that certain of the lines in the spectrum produced by light from the sun appeared only at particular periods or under peculiar conditions of the atmosphere. This was accounted for by Sir David Brewster, who found that if a ray of light was made to

pass through a colored gas, such as nitrous acid, dark bands would appear on the spectrum; from this he concluded that these variable lines in the solar spectrum were due to the influence of the earth's atmosphere on the light of the sun, and that some of the fixed lines were also to be explained by the absorptive power of the air. It is remarkable that the bands produced by the transmission of light through different vapors are quite independent of the color of those vapors, some colored vapors producing no lines whatever, as, for example, the red vapors of chloride of tungsten; while nitrous acid, which is also a *red* gas, produces black lines in the *blue* part of the spectrum.

Thus far, nothing had been discovered which could at all explain the cause of these phenomena; nothing was known but the bare fact, that certain kinds of light produced certain lines in the spectrum, and that some gases—amongst others, those composing the air—had the property of producing black lines on the spectra taken from rays of light passing through them. These facts, however, were sufficiently remarkable to attract attention, and investigations were made, and experiments instituted by the principal chemists in England and abroad, of which and of their results it is now our purpose to take a brief survey.

It is a fact well known to chemists, that certain substances have the property of imparting a particular color to any flame in which they are burned; for instance, common salt will produce a yellow flame; salts of strontium and lithium, a crimson one, etc.; and this property has been utilized by pyrotechnists in the preparation of the colored fires which have become so essential to the transformation scenes of our pantomimes. Some of these colors are sufficiently characteristic of the salts by which they are caused, to form a rough test of their absence or presence in a mixture of different substances; others,



on the contrary, have to all appearance exactly the same tint when produced by either of two salts.

When the phenomena mentioned above in connection with the solar spectrum became known, it occurred to Professors Wheatstone, Miller, and others, to observe what kind of spectrum would be projected by a ray of light proceeding from a flame colored by one of the salts to which we have just directed the reader's attention. The experiments to determine this were at first conducted in the following manner: A portion of the salt under examination was dissolved in alcohol, which was then burned in a common spirit-lamp; a ray of light proceeding from the flame was directed through a vertical slit, and passed through a prism into a telescope, by which means the spectrum could be observed more accurately than if it had been simply projected on a screen. These investigations fully proved what had been previously suspected by those who made them—namely, that the substances which produced flames of the same color to the naked eye could be readily distinguished by the difference between the spectra they produced. The salts of lithia and strontia, which, as has been before mentioned, produce a brilliant crimson color, have spectra differing very markedly from each other, that of lithia being characterized by a single bright red band crossing the spectrum, whilst that of strontia exhibits several red bands, besides a well-defined blue band.

The success of these experiments induced further investigations, and Messrs. Kirchhoff and Bunsen, by using improved apparatus, and examining a large number of salts, succeeded in building up, on a foundation which had been already laid, a system which bids fair to become the most accurate and expeditious mode of determining the composition of bodies submitted to the chemist for analysis that is yet known. These two gentlemen commenced by examining the spectra produced by a number of salts ignited in a gas-flame, and they discovered that a metal always produced the same bright lines in the spectrum, whatever substance it was mixed with, although it was found that a higher degree of volatility in the salt or salts under examination increased the facility with which the metallic base could be detected. As, however, there are only certain metals that are capable of

being thus ignited in a gas-flame, recourse was had to the electric spark, which was found to answer equally well, as the intensity of the heat from this source is so great, that by its aid all the metals can be volatilized and examined by the prism. One remarkable observation was made when the voltaic arc was thus used for the purpose of spectrum analysis; it was noticed that certain bright violet lines were produced in the spectrum, which did not seem to be characteristic of any metal, but were common to all; and it was found that these lines were caused by the atmosphere itself becoming ignited by the intense heat, and that they disappeared if the experiments were conducted in an atmosphere of hydrogen. Another result of these experiments was the discovery that certain bodies, which had always been supposed to be extremely rare, were pretty generally diffused in small quantities throughout all nature; lithia and strontia, for instance, were found in the most unpromising materials, one of which was a Flanders brick. By this method of analysis, not only can the presence of one metal be detected, but the exact composition of a mixture of metals can be determined. The spectra projected from some metals are very simple; that of sodium is crossed merely by a double yellow band; while in that of iron there are seventy bands in a portion of the spectrum comprising only about a third of its entire length. The delicacy of the test may be imagined, when it is stated that the  $\frac{1}{2,356,668}$ th part of a grain of sodium is sufficient to produce the yellow band characteristic of the metal.

In the course of their investigations, Messrs. Kirchhoff and Bunsen actually discovered two new metals, which they named *coesium* and *rubidium*, and which would probably never have been discovered by any other means; their resemblance to potassium being so strong, that all ordinary chemical analysis would have failed to detect the difference. They were both found in the water of Durkheim spring in the proportion of three grains of chloride of coesium and four grains of chloride of rubidium to a ton of water.

These experiments, although of such high importance as a mode of analysis, had as yet thrown no light on the cause of the dark lines in the solar spectrum, all the lines marked out by the different experimentalists as belonging to particu-

lar metals being bands of color more intense than the rest of the spectrum. It was reserved for Kirchhoff, the principal promoter of the experiments already made, to form a theory which, for its boldness and originality, is almost unequaled in the annals of modern science, while at the same time it is within the bounds of probability, and may very likely, on further investigation, be found capable of a demonstration almost equivalent to absolute proof.

The basis on which Kirchhoff founded his theory was an observation made in 1849 by Foucault, a French chemist, who had made some interesting experiments on the spectrum cast by the electric light. Having remarked a particularly brilliant line in the spectrum cast by the voltaic arc, which appeared to occupy the same position as one of the most marked of the dark lines in the solar spectrum, it occurred to him to cause a ray of the sun to be reflected through the electric light; and he found that, instead of the bright line of the electric spectrum neutralizing the dark line of the solar spectrum, that line became stronger, and that, if the two spectra did not exactly coincide, that part of the electric spectrum which was uncovered showed a bright line, which contrasted forcibly with the dark line of the remainder. He then tried the effect of reflecting a ray of light from the voltaic arc back through the arc, and the result was similar; the line which in the ordinary spectrum was bright became black when the light was reflected through itself.

Kirchhoff, probably remembering these experiments, endeavored with success to reduce the principle which they illustrated to a general system. He chose sodium for his preliminary researches, it being the metal which produces the simplest spectrum, and he found that if the light of the voltaic arc is passed through the flame colored by sodium, the yellow band characteristic of this metal is effaced, and its place is taken by a black band. Further investigation showed that the same effect was produced if the electric light was passed through an atmosphere of volatilized sodium. These results were

confirmed by experiments made with barium, strontium, magnesium, etc.; it being found that in all cases the light transmitted through these metals, when in a state of ignition, produced black lines on the spectrum, corresponding with the bright lines produced by the light proceeding from the metals themselves.

From these facts, Kirchhoff argued, that in all probability the lines in the solar spectrum are caused by the intense light from an incandescent body passing through a luminous atmosphere. Having come to this conclusion, he tried to find out whether any of the lines in the solar spectrum corresponded with the lines produced by known substances. For this purpose, he made use of an ingenious apparatus, by which the spectrum from a ray of sunlight was projected above the spectrum of the metal to be compared with it; in this way, those lines which were common to both spectra would form a continuous line through the two, being black in the solar spectrum, and bright in the other one. In this manner, it was found that the spectral lines of many metals, such as sodium, potassium, chromium, magnesium, etc., correspond exactly with some of the principal dark lines in the solar spectrum. The theory, then, that Kirchhoff brings forward as the explanation of the lines in the solar spectrum is, *that the sun is an incandescent nucleus surrounded by a luminous atmosphere*, of which potassium, sodium, and the other metals which have been found to exhibit similar lines to those produced by the sun, are some of the constituents.

This theory, although not devoid of probability, has not yet been subjected to a deep enough examination to be considered as established; but, on the other hand, it has too many facts in its favor to justify its being put on one side as extravagant and presumptuous. It may be that the progress of science is leading us to a mode of discovering the composition of extramundane bodies, and that we shall in time be able to say what the sun is made of, with as much positiveness as we can now affirm that the earth travels round the sun, and the moon round the earth.

From the St. James's Magazine.

## T I M E   A N D   S P A C E .

BY CAPT. A. W. DRAYSON, R.A.

A CLOUDY-LOOKING object is observed far on the distant horizon, its jagged and cut outline indicating that it is a mountain just visible above the ocean wave. It is more than fifty miles from us—a distance which we could not accomplish on foot in less than twenty-four hours. It is a long way, is fifty miles; and we should feel that it was so, if we were compelled to tramp it. Everybody knows what a mile is; so that a distance of fifty miles is at once realized, and is therefore familiar to our senses.

The sun is shining on that distant mountain, and his rays cause the ocean to glitter like a lake of molten silver. We can not look, but we can merely glance at this glowing orb, whose genial warmth is now recalling the dormant animal and vegetable life into full action; and we remember that the Sun is distant from our Earth about ninety-five million miles—95,000,000! What an enormous distance to contemplate—how immeasurably more vast than any amount of space with which we are intimately acquainted on Earth; for even our longest voyages are scarcely more than twelve thousand miles.

Yet the Sun's distance is trifling compared to that of other orbs in the heavens. For at midnight in the present month (May) we shall observe in the southern heavens a brilliant so-called star, which shines with a steady pale light. That orb is really the planet Jupiter, which is then distant from the Earth about four hundred million miles, or more than four times as far from us as is the Sun.

In the same part of the heavens in which Jupiter is seen, we may observe a large red-looking star, which also shines with a steady light. This is the planet Saturn, then distant from the Earth more than eight hundred million miles, or more than twice as far from us as Jupiter is.

Let us now reflect upon the amount of space with which we are dealing.

First, we have considered the distance of a mountain on the horizon, which was fifty miles from us. We then mentioned the Sun's distance from the Earth, and we found this more than eight thousand times that of our longest voyages. Next we find two planets, one of which is more than four times, the other more than eight times, as far off as is the Sun from this world.

We are thus speaking of enormous distances, yet we can to a certain extent comprehend them, for we can compare them with terrestrial distances, with which we are acquainted. We might even refer to a more vast portion of space, and speak of the number of miles which intervene between us and the most distant known planet of our system, namely, Neptune, which is thirty times as far from the Sun as our Earth is.

But all these miles are but measurable portions of space, whose entirety is infinitude, incomprehensible, like eternity, to which it seems to bear a great analogy.

We can not comprehend Eternity, nor can we grasp the idea of infinite Space. Let us speak of seconds, minutes, hours, years, centuries, or millions of centuries, and we can to a certain extent understand the periods indicated; and by comparing these with well-known intervals of time, we seem to grasp and realize mentally those years and centuries. When, however, we endeavor to think of century occurring after century in one endless round, never ceasing or varying, our minds are almost exhausted by the effort, and we return in thought to some well-known subject, feeling like the exhausted, unskilled swimmer, who again gladly feels the solid ground beneath him after he has ventured out of his depth.

As it is with Time, so is it with Space; we can comprehend all that is minute—such as feet, yards, furlongs, miles, leagues,

and thousands of miles. The distance which separates our Earth from the planet Neptune, although nearly two thousand eight hundred million miles, is still made intelligible to our senses by comparison. When, however, we know that the nearest of the fixed stars is immeasurably beyond the most distant planet of our system, and that beyond this star there are probably others equally as distant, and so on, we become lost amidst the multitude of recurring stars, or incapable of entertaining an idea of that which may be termed endless space.

Is it that space, like all we see around us, is a creation of the Infinite, and that even now space itself is being created to contain worlds not yet formed?

We are, in our present condition, incapable of fully realizing the infinitude and omnipotence of Deity; although we can, according to our capacities, realize a portion thereof. So space, in its fullness, is incomprehensible; let us but take a portion of it, and few among us see in it any thing wonderful, or worthy even of much reflection.

Let us, however, examine how portions of space are measured, and how, by means of the most simple rules, we are enabled to know that we have a tolerably accurate idea of the size and distance of the various worlds, and hence of the scale upon which the universe is planned.

Among almost all civilized nations there is what is called a "standard measure," the length of which varies according to the taste of the inventor or the time of the invention. Thus we hear of the cubit, the Greek foot, the French meter, the English yard, etc.; and these measures are well known in each country, so that, when referred to, any person can indicate about the distance spoken of.

An English mile is no doubt a well-known distance to all our readers, this mile consisting of 1760 yards. Thus, any definite measure, such as a yard, being established, we can, by repeating this yard any number of times, ascertain the extent of one, two, or more miles; thus, even sixty or seventy miles may be measured on Earth, and we may ascertain the distances which separate towns, villages, rivers, and other parts on the Earth's surface.

So far, measurement of distances appears a very simple thing, as easily understood as the process of ascertaining the number of yards in a piece of cloth or ribbon—and

so it really is; but now let us suddenly attempt an apparently daring feat, which, however, is one that centuries ago was attempted by the Greeks. We purpose measuring the size of the world, and finding how many miles it is round.

To measure one mile was indeed a simple labor; we had but to repeat an operation with a yard measure several times, and the length of a mile might be ascertained. To measure sixty or seventy miles in the same manner would be tedious, although quite practicable, so we will not here mention the usual plan of measuring long distances on Earth, for to do so we should have to deal with matters of too scientific a nature for the pages of this Magazine. It is sufficient for us to know at present that we *can* ascertain where the exact spot is which is sixty or seventy miles from that on which we are standing, and we can then measure the world. But to do so, we must cast our eyes upward, and turn our attention to the little twinkling stars, which we have already seen are the only true guides to our measurement of time.

We will take an imaginary position anywhere on the Earth's surface—suppose at Greenwich; we will then select some star for observation, and to simplify the matter we will assume that this star passes exactly over our heads during the night. To ascertain that it does so, we must use an instrument; but either by means of a plumb-line, or a reflecting surface such as mercury, we can be certain when the instrument is truly perpendicular, and hence when the star is exactly overhead.

After observing during several nights, and finding that the same star was at a particular time exactly overheard, we might then proceed to a station north of Greenwich, and distant about 69 miles; and if we again made observations on the same star, we should find that, instead of its now being exactly overhead, it seemed to pass at some slight distance from that point.

We could not express the distance of the star from the point overhead, in miles, or yards, because we know not the various distances of the stars; another method is, therefore, adopted, which is as follows:

All circles are divided into three hundred and sixty parts, each of which is called "a degree." From the point exactly overhead down to the horizon is one



fourth of a circle, and therefore this space contains ninety degrees; we can therefore speak of a star as one, two, or more degrees distant from the point exactly overhead.

Now let us return to our station 69 miles north of Greenwich, and we will suppose that we find that the star observed to be overhead at Greenwich, is, at this station, one degree exactly from that point. It might seem premature to say at once that we had then measured the size of the world; yet such a statement would be correct. For we should have found that 69 miles caused the star to appear one degree from the point overhead, therefore, twice 69 miles would produce a difference of two degrees, and so on, till 360 times 69 miles would give us the actual circumference of the Earth—that is, it is about twenty-four thousand eight hundred miles in circumference.

Thus by observing a star, and, finding how far it is necessary to move on the Earth's surface in order to cause that star to alter its elevation by one degree, we can at once obtain the number of miles contained in one three-hundred-and-sixtieth part of the earth's circumference.

We have endeavored to give the most simple illustration, in order to explain the means by which the size of the Earth is known, and a star was spoken of which passed exactly overhead at a particular locality. It would not, however, be absolutely necessary that such a star only could be made use of, for any star might be selected; and when we found that its height above the horizon altered exactly one degree in consequence of our change of position, then we should know that we had traveled over one three-hundred-and-sixtieth part of the Earth's circumference. Again, it would not be necessary to alter the altitude of the star by exactly one degree, for half a degree, or half a dozen degrees, would serve equally as well.

The size of the planet on which we reside is, therefore, as well known as that of our houses, and consequently we can at once tell the number of miles which separate two places, if we know how many "degrees" they are from each other. For example, Stockholm is about fifty-nine and one third degrees north of the equator, whilst the Cape of Good Hope is nearly thirty-four degrees south of it. The two localities are, therefore, separated by about ninety-three and one third degrees; and

as they are nearly in a line joining the two poles of the earth, the distance between them may be found by multiplying ninety-three and one third by the length in miles of a degree.

After we have measured the size of the world, we may attempt many problems which might previously have appeared impossible; for science advances by a series of steps, and great works are thus accomplished, just as we perform a journey on foot. If we recline and view a distant mountain, we often doubt whether we can ever reach it—and those who rarely use their limbs would deem the effort futile. By a steady perseverance, however, mile after mile is passed; and if the journey be not accomplished to-day, it may be to-morrow, or next day, or probably a week hence. Many years elapsed after the earth was supposed to be like a ball in form before an attempt was made to measure it. Centuries again passed, after this problem was solved, before another depending thereon was attempted, this other being the distances of the various celestial bodies which occupy a portion of space.

Not only in consequence of its size, but also from the facility with which certain details are seen on its surface, the moon was in the earliest ages supposed to be the nearest celestial body to the earth. Modern observation has proved this supposition to be correct; and when we consider the amount of space which intervenes between our world and the various fixed stars, we may by comparison call the moon within a stone's throw of us. The method adopted for finding the moon's distance is as follows:

Two localities are selected on opposite sides of the earth—one we will suppose to be Stockholm, the other the Cape of Good Hope. The direct distance in miles between these two stations is known, and also the number of degrees between the two. An instrument is placed in position both at Stockholm and the Cape, by means of which degrees can be measured.

The two stations are, we will suppose, exactly ninety-three and one third degrees distant from each other. Then, if two stars were at the same instant exactly vertical at each place, these two stars, on account of their immense distance, must also be ninety-three and one third degrees distant from each other.

If from these two stations the distance in degrees of any celestial body from the

point, or star overhead, were measured when that celestial body was at its greatest height, then the distance in degrees that this body was from the star overhead at the Cape, added to the degrees that it was from the point overhead at Stockholm, would amount to exactly ninety-three and one third degrees, supposing that the distance from the earth, in miles, of the body observed, was infinite. If, however, the distance of the body were not infinite, then the sum of the degrees would be more than ninety-three and one third, and according as the celestial body was very near or far from the earth, so the excess above ninety-three and one third would be greater or less.

Suppose, for example, that the sum of the two distances amounted to ninety-four and one third degrees when the moon was observed, then we should know that a line drawn from the Cape to the center of the moon formed an angle of one degree with a line drawn from Stockholm to the same point. Knowing the distance between Stockholm and the Cape, the moon's distance in miles from either locality could be at once calculated.

We have used the word "calculated;" and this may lead some readers to imagine that the process of calculation is very difficult. A few preliminaries being learned, however, renders it very simple. In fact, the distance of the moon might be obtained, when we know the data mentioned above, by the aid of a ruler and pencil; for we could draw two long lines forming an angle of one degree with each other, and then measure where the two lines were just one inch apart; then, from these points to the junction of the two lines would represent the distance of the moon from the earth, whilst the one inch represented the distance between the Cape and Stockholm. If between the points and the junction of the two lines were forty inches, then forty times the number of miles between the Cape and Stockholm would give us the distance of the moon: hence, from knowing the former we become acquainted with the latter.

From observations of this description, it is found that the moon is sometimes at a greater and at others at a less distance from the earth—the mean of these, however, amounts to about two hundred and forty thousand miles.

The method which we have mentioned as that by which the moon's distance is

obtained, might be adopted to obtain the distance of the sun and the other celestial bodies, except, that, owing to the vast amount of space which intervenes between our planet and the central orb, the angle formed by two lines drawn from different portions of the earth to the sun is so small, that great uncertainty would exist in the result.

If we had a friend on the moon who would make observations at the same time that we did on earth, and who would measure the distance in degrees between the earth and the sun at the same instant that we measured between the moon and the sun, then the problem of the sun's distance could be at once solved. At present, however, the means of transit to the moon are very little known, and consequently we have to seek other methods for the advancement of our knowledge connected with space.

More than a thousand years ago, however, a very good idea was promulgated connected with the moon and the sun's distance—this was, that when the moon was exactly half illuminated, then a line from the moon to the sun would be exactly at right angles to a line from the earth to the moon. If, at this period, the distance in degrees between the moon and sun were measured, then two angles of a triangle would be known—and hence the third, because the three angles always amount to one hundred and eighty degrees. The three angles being known, the triangle can be drawn, and as one side—namely, the distance in miles of the moon from the earth—is known, therefore the other sides could be measured or calculated, and one of the other sides is the distance of the earth from the sun, which is the quantity required to be measured.

Nothing could be more simple in theory, but in practice the problem is a failure, on account of the irregularity of the Moon's surface rendering it impossible to tell when she is exactly half illuminated.

It was not until about a hundred years ago, that another and very ingenious plan was suggested for obtaining the Sun's distance. This was by observations made during the passage of the planet Venus across the Sun's disk. By observing how far in degrees Venus separated herself from the Sun the proportion between the Earth's distance from the Sun and that of Venus was known—the actual distance in miles of either was not known, but merely the

*relative* distances. The proportion also was known between the size of the Sun and its distance—that is, if it were twenty million miles from the Earth, it must be so large; if forty millions, so large; and so on. Then two or more stations were selected on opposite sides of the Earth, and from these Venus would appear to move across different portions of the Sun's disk. Then the *difference* in the times of passage across the sun, compared with the whole time of passage, afforded data sufficient to calculate the actual distance of the Sun from the earth. To explain this problem fully would occupy nearly as many pages as are allowed us for the whole of this article; we can, therefore, merely mention the means adopted, and give the result obtained—which is, that we are about ninety-five million miles from the Sun.

This was one of the most important discoveries connected with modern astronomy, for it at once gave us the scale of the universe, and enabled us to extend our points of measurement from the Cape and Stockholm—a distance of a few thousand miles—to two points distant one hundred and eighty million miles from each other; for in consequence of the earth moving round the Sun, it travels round a circle the diameter of which is that number of miles in length.

When we know the diameter of a circle, we also know its circumference; the proportion being about as seven to twenty-two. Therefore, from knowing the distance of the earth from the Sun, we know how many miles we travel each year, and we find that these amount to nearly six hundred million, a distance over which an express train could not pass under thirteen thousand years.

This enormous amount of space, however, is comparatively nothing, when compared to that which intervenes between us and the fixed stars. To realize how vast this is, we ought first to make an experiment as follows:—Take a telescope, and direct this upon a brick wall which should be at a distance of a hundred yards or so; count how many bricks are seen to extend across the telescope; then advance a few yards nearer to the wall, and again examine with the telescope how much larger each brick appears, and consequently how many have disappeared. We shall then find how great an influence is produced on the apparent size of each brick by the change of position from one end of

a room to the other. If with the aid of two fine hairs placed in the telescope we were to measure the actual length of a brick, we should find that this length appeared to increase in consequence of our approaching it only a few yards.

Having tried this experiment, we could then appreciate an exactly similar one connected with the Stars; for the Earth, which travels around a circle, the diameter of which is one hundred and eighty million miles, must be at one time of year much nearer certain stars than at others. If, then, we select two stars, which are close together, and arrange our telescope and the hairs in it so as to measure the distance between these two—first when the Earth is nearest to them, and again when it is (six months after) most distant from them—we can comprehend how vast must be the distance between these if we find no alteration in their relative positions, although we have approached them many million miles.

The Pole Star, which is probably well known to most of our readers, is more than thirty million miles nearer to us in December than it is in June; and yet it seems no closer to the stars in its immediate neighborhood at the former than at the latter period. Thus, thirty million miles is not much, when compared to the distance of the Pole Star. To select two stars close to each other, and to observe that no changes take place in their relative positions although we may approach them by more than thirty million miles, shows us that our distance from the Sun, great as it is, is still but an atom compared to that which separates us from the Pole Star. It has lately been supposed that some stars have been found to alter their relative positions slightly during six months, but the change is so trifling as to indicate that they are at a comparatively infinite distance.

If our material existence had been cast upon the planet Neptune instead of on our own orb, we should then have had a much better chance of measuring the distance of the fixed stars, and, in fact, of the various principal planets in the system. For Neptune is, at one period of his year, five thousand seven hundred million miles nearer to some stars than he is at the opposite period. But as he occupies more than sixty thousand terrestrial days to move round the Sun, each astronomer would have but one chance during his life-

time of observing the same stars from the nearest and furthest points—that is, supposing that the Neptunites live only as long as we do.

What, then, do we know of Space? As a whole, little or nothing! We can measure portions of it—we know which of the worlds are near and which are far from us. The stars, we can prove, are at an enormous distance; yet, beyond all those that we see, there are probably others equally as far from them; and, again, more yet further. But must we again and again go on, and still find suns and systems, universe succeeding universe, and still more and more? If so, what is beyond all this? Does empty space then extend, in which nothing organic exists and nothing has yet appeared? If even this should be, what is again beyond that, and where is its boundary? Tied as we are at present to material bodies, fettered as we are, even in ideas, by this coherence of the perishable with the immortal, and accustomed to think of, examine, and compare only those things which are finite or measurable by us in our now condition, we utterly fail when we attempt to realize the idea of infinite space.

That faculty of our mysterious triune being which we term thought does in a measure annihilate portions of space. We can roam in thought, and in an instant, amongst the huge, deep, caldron-like craters on the moon, or we can rapidly transport ourselves to the surface of Jupiter, and picture to our minds his midnight sky, brilliant with the light of four moons; a voice or a note of music will suddenly recall us from these distant orbs, and perhaps transport us mentally to some quiet sea-side nook where we listened to a voice of music whose tones have thus been recalled to us. It seems, however, necessary to have some link even to enable our thoughts to range through space, for without it we fail to project them.

What link have we to guide us when we endeavor to grasp the idea of infinite space? At present, it appears that we have none; and hence we fail to comprehend it. In a future state, however, our condition may probably be so altered that finite distance is not now more clear than will then be the infinitude thereof. Between time and space there appears a great analogy—a sort of twin-brotherhood. Portions of each may be measured, divided, and treated as common

every-day matters: the whole of each is immeasurable and incomprehensible, like the Creator of each. And thus we again find a third analogy. For all organic and inorganic matters are but portions of the Infinite, who, to us, is incomprehensible.

There is a question which is not unfrequently asked by those who hear or read of the time and labor which are devoted to the elucidation of such subjects as those upon which we have ventured to treat. This is: Of what use is it to know all this? What benefit can it be to any person to know that the sun is so many million miles distant? Why might it not be only half as far? and if we knew it not, what could it matter? Is it not mere waste of time and money to still go on gaining more and more information about a host of stars? *Cui bono?* is the cry.

May we not answer, that it is one of the results of the natural healthy condition of man's mind to thirst after knowledge for his own sake, if for nothing else; and when the mind is not so impelled, then it is not in a sound state. "I have enough, and want no more," is the cry of the mental invalid, who dreams not that his cup is full from merely being so small. But there are other answers. When experimentalists first applied a loadstone to pieces of iron and found its effects on them, did they dream that their continued researches would reveal the compass which was to guide the mariner on the pathless ocean? When the earliest astronomers formed their catalogues of stars, and registered the exact position of the moon and sun at various periods, they scarcely fancied that they were placing those foundation-stones which would enable nations then unformed to issue a guide to mariners three years in advance. The child who learns his letters and his pot-hooks scarcely realizes the use that this labor may eventually become to him. And thus, in science, the laborers thousands of years ago were the representatives of science in its boyhood. We, deriving benefit from the work of those early observers, (just as the youth benefits from the studies he applied himself to when a boy,) may be called the representatives of science in its youth. Those who follow will take care that this same youth is nourished and fed so that he may become a man, and eventually be matured in all wisdom. He is long-lived and of



slow growth, is this Science—many thousand years he has already existed, and yet he is but a stripling; still he progresses rapidly, and gains strength and vigor as long as he has freedom to use his limbs—which are the thoughts of his votaries.

Shall we, in our day, say he has grown enough?—that we have nothing in trust for those who are to follow us?—that we need not inquire more, or labor more, except in those fields which will yield us that which the man of to-day calls “something useful”? Nay, let us rather inquire from the love alone of knowledge; let us collect facts, consider problems, and weigh probabilities, so as to lighten the la-

bor of our followers: and if we do nothing else, we shall in this particular science learn that time is but a term, and that to solve some of our problems requires ages: and thus, whilst dealing with vast epochs, we can not fail to realize the fact that to-day we are here, but that after a few to-morrows our lot will be cast amidst other spheres; and hence we should become, not mere creatures of to-day, but beings whose labors and thoughts are also for the morrow. We should thus endeavor to make ourselves an integral part of that humanity which is placed here to work out a destiny that in the future must be great and high!

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From the Leisure Hour.

## THE REGALIA OF ENGLAND.

WITHIN the gray and venerable walls of the Tower of London, where so many matters of historical note are to be found, there are few which have more interest than those objects which have figured on so many important occasions, and been in some measure connected with the careers of English kings and queens, and with the changes and onward progress of Great Britain.

Besides the Royal Regalia, respecting which we propose to give some particulars, there are preserved in the present jewel office, vessels of various kinds, of massive gold, but which are beyond any standard price, in consequence of the rarity and exquisite beauty of their workmanship—the Koh-i-noor diamond, and other bright jewels belonging to the crown. Although the building in which the Regalia are now kept has in modern times been in very bad taste, deprived of its ancient appearance, there are near it the famous Norman Keep—the Beauchamp Tower, in which there are so many stone records of prisoners suffering—the place of execution—the little church close by, in which two headless queens and

many eminent persons lie buried—the Traitor's Gate—and other objects of stirring interest. Each step here illustrates some page of our history, and gives rise to ideas which form contrasts with our present better condition, and the unsettled state of former days.

Before the reign of King Henry III. the jewels and other ensigns of royalty were at times placed for their safe custody in some of the religious houses, but mostly in the Temple, in London. When the King went abroad, his crown and other objects of majesty usually accompanied him; and on the return of Henry III. from France, in 1230, he commanded the Bishop of Carlisle to replace the jewels in the Tower, “as they had been before”—(this seems to be the first mention of their having been kept there.)

When the Court was held at various towns, the jewels, etc., were, on important festivals, carried to those places. The ancient accounts show that the crown jewels were not always in such safe keeping as they are in Queen Victoria's reign. During the troubles which embittered the latter part of the time of Henry III.,

he conveyed his plate and jewels abroad, and confided them to the care of Margaret, Queen of France; they were laid up in the Temple, at Paris, and afterwards pledged to certain merchants of that nation, in order to raise money for the maintenance of the King's estate, in the necessities to which he was reduced by the rebellion of his barons. In 1272 they were redeemed, and brought back again to England.

Edward III.'s expensive wars obliged him to pawn even his crown and jewels to the merchants of Flanders: they, on this occasion, were recovered; for we find that after the accession of his grandson, Richard II., certain crown jewels were placed in the hands of the Bishop of London and the Earl of Arundel, as security for the sum of ten thousand pounds, which that monarch had borrowed of John Philpot and other merchants of London. Even Henry V., a king of famous memory, was obliged, for the purpose of enabling him to carry on his wars, to pawn the pusan, a rich collar, to the mayor and commonalty of London, as security for the sum of ten thousand marks; and on the following year, having obtained large sums from the nobility and others, he empowered Thomas Chitterne, keeper of his jewels, to deliver them to those persons, as pledges for the payment of their respective loans. In the middle ages, a standard circulating medium was limited; it is therefore not so wonderful that the Regalia were often used, by offering them as security for means of revenue.

Henry VI. on several occasions was reduced to the necessity of pawning his jewels to raise money; and the accounts of some of these transactions serve to give us some faint idea of several objects which are not now to be found in the Tower. In the seventeenth year of this King's reign, the following articles were delivered, by the advice of his Council, to Henry, Bishop of Winchester, as security for a loan of seven thousand marks, namely: "A pusan of gold, called the rich collar," "a sword of gold called the sword of Spaigne," "a tablet of gold in the manner of a boke," "a tablet of St. George," "a pusan of gold, called Iklynnyton Collar," "17 saylers of gold, whereof that oon is a man, and the other a woman holdyng the saler in her handes," "ij pottes of gold." There were also a chalice, a tablet of gold of the Salutation of the Virgin, an image of St.

George, a standing-dish of gold, and several other articles, the whole of which was enriched with jewels, chasing, etc.

A few years afterwards other crown jewels were deposited with Humphrey, Earl of Buckingham, as security for part of a sum of money due to him for his own wages, and for the payment of men under his command engaged at the siege of Calais. In this agreement it was specified, that in case the money was not repaid at the end of twelve months to the Earl of Buckingham, he was at liberty to sell the jewels. Many other instances might be given of the risk or loss to which the Regalia have been exposed, even in comparatively recent times.

In Bayley's account of the Tower there is a very long list of the crown jewels, etc., in the jewel house, in the reign of James I.; our space will not, however, allow us to go into particulars, but we proceed to give the list of what may now be more especially considered the English Regalia. At the present time, in the Tower, there are five crowns—one called the crown of St. Edward; the crown of State, made for her present Majesty; the Queen's circlet of gold; the Queen's crown, used at the coronations when there is a Queen consort; and another crown called the Queen's rich crown. Beside these there are the Orb, the Ampulla, and eagle of gold, the Curtana, or pointless sword of mercy, the State sword, and the two swords spiritual and temporal, and St. David's staff. This last is as old as the Anglo-Saxon times, and is supposed to have far greater antiquity. It is four feet seven inches in length, is chiefly of beaten gold, with a pike, or foot of steel, four inches and a quarter long, and a mound and cross at the top. There are, too, the King's scepter, with the cross; the King's scepter, with the dove with wings expanded, an emblem of mercy; the Queen's ivory rod, and the Queen's scepter, with the cross. There is another elegant scepter, which was found, in 1814, behind a wainscoting in the Tower. There are also the armillæ, or bracelets, the royal spurs, the salt-cellar of state, which is a model in gold of the White Tower, and numerous vessels for common service, coronation banquets, etc.

The original crown of St. Edward, with which a long line of English kings have been crowned, seems to have in some way disappeared in the troubled time of Charles

I.'s reign, and the crown, now called St. Edward's crown, was made for the coronation of Charles II. The crown called the State crown is different from that called St. Edward's crown. The State crown was worn at the coronation banquets, at the opening of Parliament, and other important state occasions. Various state crowns have been made, from time to time, for several kings and queens of England. On the accession of her present Majesty, a new state crown was ordered to be made; and for this purpose several old crowns were broken up, and other rare jewels brought into use. Respecting this important part of the Regalia, Professor Tennant, of King's College, says that the Imperial state crown of her present Majesty, Queen Victoria, was made by Messrs. Rundell and Bridge, in the year 1838, with jewels taken from old crowns. It consists of diamonds, pearls, rubies, sapphires, and emeralds, set in silver and gold. It has a crimson velvet cap with ermine border, and is lined with white silk. Its gross weight is 39 oz. 5 dwts. troy. The lower part of the band, above the ermine border, consists of a row of 129 pearls, and the upper part of the band of a row of 112 pearls, between which, in front of the crown, is a large sapphire, (partly drilled,) purchased for the crown of his Majesty George IV. At the back is a sapphire of smaller size, and 6 other sapphires, (3 on each side,) between which are 8 emeralds. Above and below the 7 sapphires are 14 diamonds. Between the emeralds and sapphires are 16 trefoil ornaments, containing 160 diamonds. Above the band are 8 sapphires, surmounted by 8 diamonds, between which are 8 festoons, consisting of 148 diamonds. In the front of the crown, and in the center of a diamond Maltese cross, is the famous ruby said to have been given to Edward, Prince of Wales, son of Edward III., called the Black Prince, by Don Pedro, King of Castile, after the battle of Najera, near Vittoria, A.D. 1367. This ruby was worn in the helmet of Henry V. at the battle of Agincourt, A.D. 1415. It is pierced quite through, in the Eastern custom, the upper part of the piercing being filled up by a small ruby. Around this ruby, to form a cross, are 75 brilliant diamonds. Three other Maltese crosses, forming the two sides and back of the crown, have emerald centers, and contain respectively 132, 124, and 130 brilliant diamonds. Between four Maltese crosses are 4 ornaments in the

form of the French *fleur-de-lis*, with 4 rubies in the centers, and surrounded by rose diamonds, containing respectively 85, 86, and 87 rose diamonds. From the Maltese crosses issue four imperial arches composed of oak leaves and acorns, the leaves containing 728 rose, table, and brilliant diamonds—32 pearls forming the acorns, set in cups containing 54 rose diamonds and one table diamond. The total number of diamonds in the arches and acorns is 108 brilliant, 116 table, and 559 rose diamonds. From the upper part of the arches are suspended four large pendant pear-shaped pearls, with rose diamond cups, containing 12 rose diamonds, and stems containing 24 very small rose diamonds. Above the arch stands the mound, containing in the lower hemisphere 304 brilliants, and in the upper 244 brilliants; the cross on the summit has a rose-cut sapphire in the center, surrounded by 4 large brilliants, and 108 smaller brilliants.

The following is a summary of the jewels comprised in the crown of state: 1 large ruby irregularly polished, 1 large broad-spread sapphire, 16 sapphires, 11 emeralds, 4 rubies, 1363 brilliant diamonds, 1273 rose diamonds, 147 table diamonds, 4 drop-shaped pearls, and 273 pearls.

The office of keeper of the royal jewels had been considered one of considerable importance, and was holden by persons of distinction. In the reign of Henry VIII., Thomas Cromwell, who was afterward Earl of Essex, was appointed to this post. The keeper was styled the Master and Treasurer of the Jewel-house; and besides the care of the Regalia in the Tower, he had the purchasing and custody of all royal plate, the appointment of the King and Queen's goldsmiths and jewelers, the furnishing of plate to ambassadors and great officers of state, and the remanding of it when the ambassadors returned, or the officers died, or were removed. He had lodgings in all the King's houses, and conveyance as well for the plate as for his own household, or removals of the court. The salary attached to his office was only £50 per annum, but his perquisites were very considerable; and in the reign of King Charles II., after they had undergone considerable reduction, amounted to £1300 yearly. He was allowed a table of fourteen dishes, with beer, wine, etc., or 38s. daily for board wages; £300 came to him every year out of the New-Year's gift money; and about £300 more he obtained by car-

rying presents to ambassadors. He had an allowance of twenty-eight ounces of plate yearly, and the small presents sent to the King, anciently valued at £30 or £40, as also the purses wherein the lords presented their gold, which were usually worth £30 or £40 each. In public processions he had precedence next to privy councilors. At coronations he wore a scarlet robe, and dined at the barons' tables in Westminster Hall; and at opening and closing sessions of Parliament, and on passing of bills, when the King appeared in his robes, he attended to put on and take off the crown from his Majesty's head.

Sir Henry Mildmay was Master and Treasurer of the Jewel-house during the interregnum, but on the restoration of Charles II., and the attainder of Sir Henry, the office was given to Sir Gilbert Talbot, when many of the perquisites were either abolished or came into other hands; and since that period, all the duties and advantages of the place have either been done away with, or have merged in the of-

fice of the Lord Chamberlain, except the custody of the Regalia in the Tower, the appointment of which is also in his lordship's gift.

The Master had formerly lodgings in the Tower, but did not reside there except on important occasions, that part of his charge being confided to a trusty servant. And it was soon after the appointment of Sir Gilbert Talbot that the Regalia in the Tower first became objects of public inspection, which King Charles allowed in consequence of the above-mentioned reductions in the emoluments of the Master's office. The profits which arose from showing the jewels to strangers, Sir Gilbert assigned in lieu of a salary to the person whom he had appointed to the care of them. This was an old confidential servant of his father's, one Talbot Edwards, whose name is still so well known as keeper when the notorious attempt was made by Blood to steal the crown in the year 1673.

## SAMUEL FINLEY BREESE MORSE.

IN the finely-engraved portrait which embellishes the present number of *THE ECLECTIC*, the reader will recognize the expressive lineaments of Prof. S. F. B. Morse, whose genius and talents have opened a great passage-way for the transmission of intelligence at lightning speed over all this land, and widely over foreign countries. This great act of his inventive genius will immortalize his name, and place him high on the roll of fame as a benefactor of his race. We are quite sure our readers will be gratified to possess so accurate a portrait, and so well executed, by his personal friend, the artist, Mr. John Sartain. We subjoin the following biographical sketch, the most of which we find in *The Men of the Time*:

PROFESSOR MORSE is the eldest son of the Rev. Jedediah Morse, the first American geographer, and was born in Charlestown, Massachusetts, April

27th, 1791. He was educated at Yale College, where he graduated in 1810. He had from a very early age determined to be a painter; and his father, finding his passion for art incorrigible, consented to indulge him in his wishes; and he accordingly sailed for England, under the charge of Mr. Allston, and arrived in London in August, 1811. Here he formed an intimacy with C. R. Leslie, and the first portraits of either of these artists painted in London were likenesses of each other. Mr. Morse made rapid progress in his profession. In 1813, he exhibited at the Royal Academy his picture of "The Dying Hercules," of colossal size, which received high praise from the connoisseurs, and the plaster model which he made of the same subject, to assist him in his picture, received the prize in sculpture the same year. Encouraged by this success, the artist determined to contend for the







*Engraved by John Sartan*

*for the Eclectic*

*after Photo. from life.*

PROF. SAMUEL F. B. MORSE.

INVENTOR OF THE MAGNETIC TELEGRAPH

premium in historical composition offered by the Academy the following year. The picture, the subject of which was, "The Judgment of Jupiter, in the case of Apollo, Marpessa, and Idas," was completed in time, but Mr. Morse was obliged to leave England before the premiums were to be adjudged, and was consequently excluded from the privilege of competing for the prize. Mr. West afterward assured him that he would undoubtedly have won it. On his return to America, he settled in Boston. About 1822, he took up his residence in New-York, where he found his works and talents more justly appreciated, and his skill as an artist put in requisition. Under a commission from the corporation, he painted a full-length portrait of Lafayette, then on a visit to the United States. It was shortly after this, that Mr. Morse formed that association of artists which resulted in the establishment of the National Academy of Design, of which he was elected president; and it is worthy of note, that the first course of lectures on the subject of art read in America, was delivered by him before the New-York Athenaeum, and afterward repeated to the students of the Academy. In 1829, he paid a second visit to Europe, and remained abroad three years. On his return from Europe, in the packet-ship *Sulley*, in 1832, a gentleman, in describing the experiments that had just been made in Paris with the electro-magnet, the question arose as to the time occupied by the electric fluid in passing through the wire, stated to be about one hundred feet in length. On the reply that it was instantaneous, (recollecting the experiments of Franklin,) he suggested that it might be carried to any distance, and that the electric spark could be made a means of conveying and recording intelligence. This suggestion, which drew some casual observation of assent from the party, took deep hold of Professor Morse, who undertook to develop the idea which he had originated; and, before the end of the voyage, he had drawn out and written the general plan of the invention with which his name will be inseparably connected. His main object was to effect a communication by means of the electro-magnet that would leave a permanent record by signs answering for an alphabet, and which, though carried to any distance, would communicate with any place that might be on the line. His first idea was

to pass a strip of paper, saturated with some chemical preparation that would be decomposed when brought in connection with the wire, along which the electric current was passing, and thus form an alphabet by marks, varying in width and number, that could be made upon the paper at the will of the operator, and by this means avoid separating the wire at the different points of communication. On his return to New-York, he resumed his profession, still devoting all his spare time, under great disadvantages, to the perfection of his invention. Finding his original plan impracticable, he availed himself of the action of the electro-magnet upon the lever as a mode of using pens and ink, as in the ruling machine. Of these he had five, with the idea of securing the required characters from one of the pens. These he abandoned for pencils, and after a trial of various means for obtaining the end desired, and finding by experiment he could obtain any requisite force from the lever, he adopted the stylus or steel point for indenting the paper, and it is this he has since used. After great difficulty and much discouragement, Professor Morse in 1835 demonstrated the practicability of his invention, by completing and putting in operation in the New-York University, a model of his "Recording Electric Telegraph"—the whole apparatus, with the exception of a wooden clock which formed part of it, having been made by himself. In 1837, he abandoned his profession, with great regret, hoping to make his invention a means of resuming it, under easier and more agreeable circumstances. In the same year, he filed his caveat at the patent-office in Washington; and it is somewhat singular that, during this year, (1837,) Wheatstone, in England, and Steinheil, in Bavaria, both invented a magnetic telegraph, differing from the American and from each other. Wheatstone's is very inferior, not being a recording telegraph, but requiring to be watched by one of the attendants—the alphabet being made by the deflection of the needle. Steinheil's, on the contrary, is a recording telegraph, but from its complicated and delicate machinery, has been found impracticable for extended lines. At a convention held in 1851 by Austria, Prussia, Saxony, Wirtemberg, and Bavaria, for the purpose of adopting a uniform system of telegraphing for all Germany, by the advice of Steinheil, Professor Morse's was the one selected. From

the Sultan of Turkey he received the first foreign acknowledgment of his invention, in the bestowal of a *nishan*, or order—the “order of glory:” a diploma to that effect was transmitted to him with the magnificent decoration of that order in diamonds. The second acknowledgment was from the King of Prussia, being a splendid gold snuff-box, containing in its lid the Prussian gold medal of scientific merit. The latest acknowledgment is from the King of Württemberg, who transmitted to him the “Württemberg Gold Medal of Arts and Sciences.” In 1838, he went to England, for the purpose of securing a patent there, but was refused through the influence of Wheatstone and his friends, under the pretense that his invention had already been published there. All that could be adduced in proof of this was the publication in an English scientific periodical of an extract copied from the *New-York Journal of Commerce*, stating the results of his invention, without giving the means by which they were produced. In the following spring, he returned to this country, and in 1840 perfected his patent at Washington, and set about getting his telegraph into practical operation. In 1844, the first electric telegraph was completed in the United States, between Baltimore and Washington; and the first

intelligence of a public character which passed over the wires was the announcement of the nomination of James K. Polk, as the Democratic candidate for the presidency, by the Baltimore convention. Since then, he has seen its wires extended all over the country, to the length of more than fifteen thousand miles—an extent unknown elsewhere in the civilized world. His success has led to the invasion of his patent rights by others, whom he has finally succeeded in defeating, after an expensive and protracted litigation. Professor Morse still clings to the idea of resuming his early profession of painting, to which he is strongly attached, and in the progress of which he has always taken a deep interest. As an artist, he has always enjoyed a very high reputation. His tastes inclined to historical painting, but circumstances did not often permit him to indulge it; he was mainly engaged in the painting of portraits. In 1820, he painted a large picture of the interior of the House of Representatives, with portraits of the members, which passed into the possession of an English gentleman; and in 1832, while in Paris, he made a beautiful picture of the Louvre gallery, copying in miniature the most valuable paintings. He resides at Locust Grove, two miles south of Poughkeepsie, on the banks of the Hudson River,

From Colburn's New Monthly.

## SIR MARC ISAMBARD BRUNEL.\*

THE early years of Marc Isambard Brunel were in the most fearful period of the first French Revolution. His parents, who were well descended and independent—though more honored than wealthy—were Royalists; and he was himself also warmly attached to the same principles. This, at the time we speak of, would have been sufficiently dangerous even if he had been silent as to the opin-

ions he held; but he was of too ardent a temperament for concealment.

“On the very day when the Convention pronounced sentence against the unfortunate Louis XVI., Brunel was found defending his own loyal opinions in the Colonnade of the Café de l’Echelle, little conscious of the risk to which he subjected himself;” and was answering the observations of a ferocious ultra-republican with taunts that were likely to aggravate his danger, when, “fortunately for our young loyalist, M. Taillefer, a member of

\* *Memoir of the Life of Sir Marc Isambard Brunel.* By RICHARD BEAMISH, F.R.S. London: Longman & Co. 1861.



the Assembly, by committing an act of still greater indiscretion, turned the attention of those present upon himself, and in the confusion which ensued Brunel was enabled to effect his escape. That night he slept at the Petit Gaillard-bois, next door, and the following morning, at an early hour, quitted Paris."

He had previously been at Rouen, when at the seminary of St. Nicaise, and, returning there, he availed himself of the protection of his relation, M. Carpentier, whose views were known to be moderate, and where "he was enabled to remain for a time undisturbed." It was also "under his hospitable roof that an event occurred which will be found to have exercised a marked influence upon Brunel's future career. In that house, for the first time, he met a young English lady of the name of Kingdom, gifted with no ordinary personal attractions." She was the orphan daughter of an army and navy agent at Plymouth. She had just attained her sixteenth year; and her mother had been induced to allow her to accompany some West-India friends, M. and Madame de Longuemar, to Rouen, that she might acquire a practical knowledge of the French language. "It might be matter of some surprise," says Mr. Beamish, "that Miss Kingdom should have been permitted by her friends to enter France at all at a period when every thing was tending so rapidly to a political crisis,\* if we were not aware how little was generally known in England as to the condition of political parties in France. But already royalty was in captivity, and the most fearful cruelties were being committed in the name of liberty."

"At Rouen two young ladies, known to M. and Madame Longuemar, were dragged into the street by the insensate mob, and, with shouts of '*à la lanterne*,' were actually murdered because they had been heard to play a loyalist air upon their piano-forte." The alarm thus created in Rouen hastened the departure of M. and Madame de Longuemar for the West-Indies. Miss Kingdom would gladly have accompanied them had not a severe illness rendered her unable to encounter the inconvenience of a sea-voyage." She was left under the care of M. Carpentier, and here Brunel became acquainted with her. For him "beauty of form possessed an

irresistible attraction," and mutual tastes and sympathies did the rest. But there was to be a long separation. He had again made himself offensive to the revolutionists. Some disturbances had been excited by the Republican party at Rouen, which the Royalists had been called out to suppress, and Brunel amongst the number. The dangers that equally surrounded them attached him more devotedly than ever to the object of his affections; a reciprocal avowal of their attachment followed; but his situation daily became more critical, and a longer delay in Rouen might have cost him his life. With much difficulty he obtained a passport for America. Not a moment was to be lost; and, "on the seventh July, 1793, he bade adieu to his native France, not, as we may believe, without feelings of deep and heartfelt sorrow." He embarked on board an American vessel at Havre. Scarcely, however, had he begun to congratulate himself upon his escape, embittered though it must have been by a separation the most painful we can imagine, when he discovered that the passport, which could alone protect him from the national vessels of war that were cruising in the Channel, had been forgotten and left behind. Brunel's was not a mind to waste itself in vain regrets. He borrowed the passport of a fellow-passenger as a model, and his skill as a draughtsman and in penmanship enabled him soon to produce a copy "so admirably executed in every minute detail, even to the seal," that when the American was boarded by a French frigate, and the passengers were rigidly examined, not the slightest suspicion of the well-simulated document was excited, and on the sixth of September, 1793, he landed in safety at New-York.

With this, the romance of his life was near an end. Many years elapsed before he again saw the lady who was destined to be his wife. When England had entered into the coalition against France, all communication between the two countries was cut off, "and the English then found upon French soil were, without regard to sex or age, hurried away to prison. Fortunately for Miss Kingdom, the prisons were already full to overflowing. She was, therefore, with some others, conveyed to a convent, and placed under the surveillance of the nuns." Their wretched fare and miserable lodging were evils that were made endurable by the kind sympa-

thy of the poor women who had been made their jailers; but it was a state of fearful suspense as her companions passed one by one from the convent to the scaffold, till on a morning of July, 1794, "the doors of their prison-house were thrown open, and they were declared free to depart whither they would." The Reign of Terror was at an end. The Carpentiers again received their young friend with open arms, "and, as the best service they could now render, they lost no time in obtaining for her a passport to her own country."

When Brunel landed in America he had little to depend upon for subsistence beyond the skill in mechanics possessed by an unknown man. The direction of his talents to such objects had been a source of vexation and disappointment to his family, who had intended him for the Church. They afterward consented to his entering the royal navy. Through the interest of the Maréchal de Castries, he was appointed, before the usual age, a *volontaire d'honneur*, a privilege, we are told by his biographer, that "had only once before been granted, and that to M. de Bourgainville, the celebrated circumnavigator;" and it is regretted that of his six years' services in the navy we have no record.

But, from his earliest years, his studies and amusements were connected with machinery, and with the instruments used in its construction. As a mere boy his delight was in the work-shop of the carpenter. Wheels and cylinders were his playthings; the tools employed to form them were the only objects he coveted. His father had endeavored in vain to deter him from such pursuits, and had "sought to compel obedience to his wishes by the infliction of various punishments, solitary confinement being the most often employed."

"Of one room, selected for that purpose," says Mr. Beamish, "the little recusant entertained something like horror. On the walls of that room hung a series of family portraits. Amongst them was one of a grim old gentleman, the eyes of which appeared to be always turned toward him, with a frown so stern, menacing, and forbidding, that fear and vexation took possession of his mind. No matter in what part of the room he took shelter, still those angry eyes were upon him; nor could he resist their painful attraction,

for look at them he must. His nervous temperament becoming unable to bear the sort of persecution any longer, he one day, when nearly distracted, collected all his strength to drag a table from one end of the room, and to place it immediately beneath the picture. Upon the table he contrived to lift a chair, and on this chair he climbed. Regardless of consequences, he at once revenged himself for the misery he had endured, by fairly cutting out the eyes from the canvas with the aid of his friendly pocket-knife." The boy proved indomitable; and the world gained one of the most gifted of its civil engineers.

His first chance of employment in America arose from his connection with two of his fellow-passengers, M. Pharoux and M. Desjardins, who were engaged in the survey, for a French company, of a large tract of land near Lake Ontario, and who permitted him to join their expedition. Accompanied by four Indians, they entered "upon the arduous duty, not only of exploring, but of actually mapping a region hitherto scarcely known." The glories of the physical world, in forest wastes

"Which human footstep never yet had pressed,"

made a deep impression upon the mind of Brunel, and "were ever remembered by him with renewed pleasure, mingled with a certain awe when he called to mind the perils and the gloom by which his path had been so often compassed."

Their task was accomplished, and while returning to New-York they became acquainted with a Mr. Thurman, an American loyalist, by whom M. Pharoux and Brunel were engaged in carrying out some extensive projects for the construction of canals and the improvement of the navigation of rivers. He seems to have been successful in all that he attempted. Mr. Beamish says that in "less than twelve months he had achieved a name and secured an independence." This leaves but a vague impression, especially as we are afterward told that "his genius received but inadequate reward." It is certain, however, that he had now established his reputation as a civil engineer, and was extensively employed. As an architect he was equally successful. When plans for the Senate House, at Washington, were opened to competition, Brunel's was so immeasurably the best that "the judges were

relieved from all difficulty of selection ;" but motives of economy deprived the nation of a structure worthy of its greatness. The Park Theater at New-York, which was burnt down in 1821, was also from his designs, with some additions by his friend and enlightened patron Pharoux ; whose death, in an attempt to cross the great falls of the Black River, he had soon afterward to lament.

His talents had now raised Brunel so high in the estimation of the citizens of New-York, that he was appointed their Chief Engineer, and it was in this capacity that he had to prepare designs for a cannon foundry, to assist in the fortifications which defended the approaches to the city, and to carry on a variety of labors, of which, unfortunately, few particulars remain.

An incident during this time occurred that gave to England the benefit of one of his greatest inventions. He was one day dining with General Hamilton, the distinguished aide-de-camp and secretary of Washington. Amongst the guests was a M. Delabigarre, who had lately arrived from England ; and the conversation turned upon the recent achievements of the British navy, our naval prowess, the principles of naval architecture, and the supply of the materials of ships-of-war. He seemed to have given these subjects his special attention, and enlarged more particularly on the manufacture of *ships' blocks*, describing the machinery in use at Southampton by Messrs. Taylor, and the great and increasing expense of their mode of making them. Brunel took part in the discussion. What he had heard made at once an impression upon his mind, and was long afterward the object of deep and intense thought ; and it is to the conversation at General Hamilton's table that we have to trace the invention of the machinery at Portsmouth, which has for years been one of the wonders of England, and has been visited by travelers, both scientific and unscientific, from every part of the world.

Though the institutions of France were assuming a more settled character, Brunel saw little inducement to return there, and had become a citizen of New-York in 1796 ; but he had long seen that his field of fame lay in another land. While yet a boy, and wandering on the quay at Rouen, his inquiries about any piece of curious machinery or mechanic skill that was be-

ing landed, were always answered that *it came from England*, and his constant exclamation was : "*Ah ! quand je serai grand, j'irai voir ce pays la !*"

His intention was fulfilled. He left America and landed at Falmouth in 1799, and was soon afterward married to Miss Kingdom. For his sake she had rejected many an eligible offer, and "we may well believe that her confidence and her affection had nothing to regret," when, after forty-six years of wedded life, he could write to her, in his seventy-sixth year, with all the freshness of his first regard : "To you, my dearest Sophia, I am indebted for all my success."

We have already said that our notice of his life would be devoted to other subjects than his career as a man of science. To this we shall very briefly allude. When once in England, nothing seemed so great as to be beyond his power, and nothing so unimportant as to be beneath his notice. Block-machinery, sawing-mills, bridges, the printing-press, and the Thames Tunnel were not sufficient to occupy his attention to the exclusion of a number of smaller inventions and improvements, down to hat-boxes, pill-boxes, and knitting-machines.

To the history of the Thames Tunnel Mr. Beamish devotes a very large and interesting portion of his work. It is too extensive to be given, even in an abridgment, and will amply repay a careful reading. It will also be the authentic record for future reference of a great work, to which only one element of success was wanting.

Next in utility and importance to the machinery at Portsmouth, Mr. Beamish seems to consider the works at Chatham. They were a signal instance of what a mind trained and constituted for its task could accomplish. Under the old system the landing, removal, and laborious dragging to and fro, for survey, stacking, and sawing of eight thousand loads of timber, required eighteen thousand goings and comings of teams of horses, and the expense, confusion, and damage which attended these clumsy movements would now seem incredible. With the aid of a great inventor all this was effected by means of an elaborate complication of machinery, of which some of the most important operations could be directed by a single man.

It is not clear, from Mr. Beamish's narrative, to what extent Mr. Brunel was rewarded by Government. For the ma-

chinery at Portsmouth he seems to have received something less than eighteen thousand pounds; and he had a grant to relieve him from his difficulties, in 1821, of five thousand pounds. This, however, could not have been his whole remuneration. There were further receipts both from Woolwich and Chatham.

In addition to his other works, he had sawing-mills and various processes carried on at Battersea for his private gain. But they were unfortunate in their results. We were told by a well-known artist, in his studio at Rome, "*Ah! signore, fra l'oro e me non c'è affinità: viene e va*;"\* and it may equally have been said of Brunel. As a commercial speculation the works at Battersea were badly managed. He also lost considerably by his machinery for supplying the army with shoes, which was scarcely brought into full operation when the war unexpectedly terminated. To add to these calamities, in August, 1814, the mills at Battersea were burnt, and in two hours was "nearly destroyed an establishment which had been valued at twenty-four thousand pounds, and which had cost many hours of anxiety and self-denial." A series of embarrassments followed. By the untiring energy of Brunel the machinery was replaced; but the financial affairs of a concern capable of yielding a gross return of eight thousand pounds or ten thousand pounds per annum, were a complication of inextricable confusion; and in 1821 he was a prisoner in the King's Bench.

His sufferings under this misfortune are well brought before us. In appealing to his powerful friends, "My affectionate wife and myself," he writes, "are sinking under it. We have neither rest by day, nor night." "Thus" (adds his biographer) "many a sad to-morrow came and went; and he that had enriched hundreds by the exercise of the most honored of the human faculties, was left for months to mourn the hardness of his fate." He felt too that, in the eyes of the world, his misfortune might seem a disgrace. At last, the grant that we have already mentioned was obtained, through the assistance of the Duke of Wellington, and he was enabled to recover his liberty. It was made expressly for services "rendered to the country, more especially in reference to the block machinery," an invention of lasting

importance, the whole merit of which, as Mr. Beamish satisfactorily shows, belonged exclusively to Brunel.

He received his knighthood in 1841, toward the close of his labors at the Thames Tunnel, and the anxieties that overwhelmed him in connection with the difficulties of such a work brought on his first serious illness. It was an attack of paralysis. By submission to proper medical treatment he soon recovered from its immediate effects, and it was not till 1849, in his eighty-first year, that he died. His devoted wife survived him. Of his children, a daughter is the wife of Sir Benjamin Hawes, and her recollections, and the materials she had collected, have greatly assisted Mr. Beamish in his task. The only other child need scarcely be named. He will be known to future generations both for his successes and his failures. The launching alone of the Great Eastern was a triumph of mechanical genius, however misapplied; and as long as she occasionally tumbles about the Atlantic like a harpooned whale, or threatens destruction to every thing in the port she enters, the name of her projector will be freshly though painfully remembered.

In one of the notices of Mr. Beamish's work it is remarked that the reckless expenditure, both by father and son, of money that was invested not for wild experiments, but for profitable returns, amounted to little less than dishonesty. We do not join in this opinion. There was no selfishness or intention to do wrong; nor even greediness of gain. It could not be said of either of them that he was "alieni appetens," and if they were profuse, they were not more so of the money of others than of their own. It seemed to be their idiosyncratic feeling that it was only created to be spent. Besides, nothing great in invention or discovery can be achieved except by the possessor of so sanguine a temperament as to the prudent seems insanity, and sometimes worse than insanity. Those who blame the Brunels for their losses should rather blame their own folly for committing their little all to the hazard of such a die. The heartaches that followed were as much to be attributed to wild cupidity of gain as to a wasteful expenditure of the money that had been so unwisely risked. But let the blame be shared by whom it may, it applies to transactions that can scarcely be brought within the category of dishonesty.

\* *Between myself and gold there is no affinity: it comes and goes.*



In the character of the father there were many points to attract attachment and regard. Of his personal appearance, his biographer does not convey to us a very favorable impression. "Brunel" (he says) "was below the middle stature, his head conspicuously large, though without destroying the symmetry of his person; so striking, indeed, was his forehead, that an Irish friend of mine, after his first introduction, was tempted to exclaim, 'Why, my dear fellow, that man's face is all head!' But it was such a head as is rarely seen. Judging from the cast of a medal in our own possession, it was as fine as that of Goethe or of Scott. In its developments the mental faculties were shown in a remarkable degree; and the moral sentiments of benevolence, veneration, and hope. His habits were simple and unostentatious, and he had that love of children and of animals which generally indicates a kindly disposition. Of his fondness for children Mr. Beamish gives some amusing instances. To his own he was a loving and devoted father. He was a great favorite in society, 'as well from the variety and accuracy of his knowledge as from a naïveté and humor of expression which was much enhanced by his foreign accent; and though not unwilling to enter into new topics of conversation, his natural disposition led him rather to indulge in anecdotes of the past.' Both in word and action he had great presence of mind. When unexpectedly reminded by the Prince Regent that he had promised a copying-machine of his own invention, and never sent it, his ready and graceful answer was, 'Please, your Royal Highness, I have unfortunately never been able to perfect the machine so as to make it worthy of your Royal Highness's acceptance.' As an instance of the same faculty under very different cir-

cumstances, it is mentioned that "while inspecting the Birmingham Railway, a train, to the horror of the bystanders, was observed to approach from either end of the line, with a velocity which, in the early experience of locomotives, Brunel was unable to appreciate. Without attempting to cross the road, he at once buttoned his coat, brought the skirts close round him, and firmly placing himself between the two lines of rail, waited with confidence the issue. The trains swept past leaving him unscathed."

He was indulgent to the attempts of inferior talent; and if amongst his failings was an undue "love of approbation," it must be remembered to what an extent he possessed the qualities for which approbation might be claimed.

His religious impressions were those of a serious and reflective mind. Though educated a Roman Catholic, he had become attached to the Church of England, and had carefully studied the Scriptures for himself. To a mind so disciplined, death would be regarded as the inevitable dispensation of God, and would be met with calmness and resignation. In the words of his biographer: "At peace with himself and all beside, he calmly sank to rest, leaving a name to be cherished so long as mechanical science shall be honored."

It is no exaggeration to say that, out of such men as these, the dark ages made their magicians, and the nations of antiquity their demigods.

Our closing words will be with Mr. Beamish himself, and we would suggest to him that, devoted as he has been for years to the amusements and pursuits of a refined and cultivated mind, he will be expected to give us other works as acceptable as his *Life of Brunel*.

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We often fancy we suffer from ingratitude, when, in reality, we are suffering from self-love.

It is only in the world of dreams that we have the rainbow without the storm.

THE object of conversation is to entertain and amuse. To be agreeable, you must learn to be a good listener. A man who monopolizes a conversation is a bore, no matter how great his knowledge.

Do not dwell on the dark side of things, but on life's brighter aspects. "He who goes into his garden to seek for cobwebs and spiders, no doubt will find them, while he who looks for a flower may return into his house with one blooming in his bosom."

"For my part," said Alton Locke, "I seem to have learnt that the only thing to regenerate the world is not more of any system, good or bad, but simply more of the Spirit of God."

Abridged from the London Times of May 2d.

## THE GREAT EXHIBITION.

## THE OPENING CEREMONIAL.

EVERY thing combined on Thursday (May 1st) to make the second Great International Exhibition a perfect success. Rain fell heavily till about eight o'clock, when the clouds cleared away, and thenceforward the weather was as brilliant as possible. Detachments of police began to make their appearance in the streets near the Exhibition about nine o'clock, but long before that hour files of carriages stretched far away to Knightsbridge in one direction, and across the Park in another. For nearly an hour the character of the gathering remained unchanged, though the lines of carriages doubled and lengthened, and the crowd at the doors deepened. . . . The line was kept by patrols furnished by the Second Life Guards, the Fifth Lancers, and the Royal Horse Guards. By their exertions and that of the mounted police, a free circulation was kept up along this route during the day, and the processions from Buckingham Palace and the Mansion House respectively were little, if at all, delayed. But those who took the lower road by Hyde Park corner had their patience sorely tried. From an early hour "blocks" appeared to be the rule, and locomotion the exception. Between eleven and twelve o'clock the great mass of distinguished visitors began to reach South-Kensington. In all the varied and gorgeous colorings of French, Austrian, Russian, Bavarian, Saxon, and other European Embassies, in the less dazzling, but still rich and diversified garb of private households, a rapid and bewildering succession of equipages swarmed up, to the western dome chiefly, and deposited their occupants. The Haitian Embassy and the Japanese Ambassadors were the objects of greatest interest to the spectators. At the western door also entered the Civic procession, headed by the Lord Mayor, which came by Cheapside, Newgate street, and Holborn hill. The entrance in Cromwell

road had been reserved especially for the Royal Commissioners, for members of the British Royal family, and for other illustrious personages. It was at this point where, perhaps, the public pressure was strongest. Now the crowd was vanquished, and permitted itself to be restrained within rational limits; now it surged forward, and swallowed up members of the cavalry singly, so that only their swords and helmets were to be seen. One very beautiful horse resented the pressure, not by any vicious or clumsy means, but by a maneuver peculiar to itself. Rearing as nearly as possible straight up, it pushed out its forelegs in the direction of the crowd as easily and gracefully as if drawing on a glove, and having induced them to keep at a respectful distance, dropped down into its former position.

Shortly after half-past twelve o'clock the Duchess of Cambridge, the Grand Duchess of Mecklenburg-Strelitz, and the Princess Mary arrived and were received with a Royal salute. On alighting they were met and conducted to their places by Earl Granville, the Duke of Buckingham, and others of the Exhibition Commissioners. At one o'clock precisely the carriages conveying the Royal Commissioners deputed by her Majesty to open the Exhibition reached the same entrance, having proceeded in procession from Buckingham Palace. They were received with military honors. Lord Palmerston descended from his carriage with difficulty, but no sooner had he alighted than he engaged in earnest conversation with the assembled Exhibition Commissioners. Recent suffering betrayed itself in Lord Derby's face, and he walked rather lame, leaning on a stick. Immediately following the Royal Commissioners were the royal carriages containing the Crown Prince of Prussia and Prince Oscar of Sweden, with their respective suites. The Crown Prince

was very warmly cheered. By half-past twelve the doors were closed against any but privileged persons. Outside the building the crowd, under the influence of fine weather, were patient and good-humored. There was a vast assemblage in the Exhibition road, where the strains of the orchestra and choir were faintly heard. The Hallelujah Chorus was listened to attentively, and the well-known strains of the National Anthem, followed by cheers inside, told that the crowning act in the day's ceremonial was accomplished. The cheers were immediately echoed, and again and again repeated with interest; and the Horse Artillery, stationed on the site of the Exhibition of 1851, fired a royal salute.

The ceremonial within the building was the grandest, best managed, and most imposing public pageant which has been seen in this country for years; and, considering all that had to be done at the very last moment, it is wonderful how complete was every arrangement. . . Gradually the crowd occupied every nook and corner, and the huge orchestra budded forth in colors as the fair members of the choir took their seats, till at last the whole of this great amphitheater was as beautiful as a prize bank of azaleas at a flower-show. The bands of the Grenadier, Coldstream, and Fusilier Guards were stationed at the western dome, but at the eastern end all the real attractions were centered. Here came the invited visitors to the reserved seats, some, though a small minority, in uniform; and here also assembled the ambassadors and foreign visitors of distinction before proceeding to their starting-post from "Procession Court." None were admitted within the area on the dais platform itself except in uniform of some kind, and, as the latitude was very great, the variety in fashion and color was almost infinite. The ten thousand hues of the ladies' spring dresses formed a rich mass of coloring, on which the rays of the sun played with a wonderfully brilliant effect, and the gay robes of gold chains of office displayed by some of the provincial mayors, contributed very materially to the splendors of the scene. The rule as to uniforms was inexorable. The Japanese ambassadors were of course the objects of unmeasured curiosity. Their dresses were plain in color, but rich in material. They wore the two swords which in their land are the highest insignia of aristocracy. Under the western dome also were mayors and

corporate dignities, refulgent in many-colored robes. There were Greeks, Turks, Albanians, Parsees, and Persians, all more or less embroidered and enriched, Hungarians and Highlanders, Swedes and Orientals—great men of almost every clime and creed and costume. Compared with 1851, the mere spectacle was as much more gorgeous as the Exhibition itself is better.

The first scattered elements of the procession began to assemble in the South Court shortly before twelve. Mr. Fairbairn, Sir C. Dilke, the Duke of Buckingham, and Mr. Sandford, were each in their places long before the appointed time, showing no traces of having been up the night before, and though last, not least, among the hardest of the hard workers were Mr. Kelk and Messrs. C. and T. Lucas, probably the only three men in the kingdom who could have executed the huge work with which they were intrusted within the allotted time. To these, also, others, of not more importance, but greater magnificence, came in fast. Mr. Drummond Wolff, in virtue of his office as Commissioner from the Ionian Islands, was for a time the observed of all observers, till Count Waldstein and Count Szechenyi came upon the scene in full Hungarian costumes—the latter all in black, and the former in most picturesque garments of the same fashion, but with a perfect breast-work of turquoises round him. The Duke of Newcastle, the Duke of Buccleuch, Mr. Disraeli, Mr. Lowe, Sir C. Wood, Mr. Gladstone, the Bishop of London, and the Lord Mayor, came within a few minutes of each other. Then there was a pause, during which the personages in the embryo procession had nothing to do but to criticise the tinted marble statues sent by Gibson from Rome, which were right in front of them, and facing the great skeleton of Benson's half-finished clock. At half-past twelve o'clock all reserved seats left till then unoccupied were thrown open to the visitors, and in the midst of the bustle consequent thereon, it was discovered that there was an unpleasant congregation of workmen upon the roof, who were busily engaged in taking out the panes of glass from the sashes and inserting their heads in lieu of them, in order to get a better view into the interior. So "authorities" were dispatched forthwith to disperse as much as possible the unnecessary crowds of lookers-on from such a dangerous point of view; and this last clearance made, all

only awaited the arrival of the Special Royal Commissioners to commence the ceremonial. Lord Granville had been one of the first among the distinguished personages to enter the procession court, when he was most warmly welcomed, and congratulated upon the success so far of the great undertaking, to the completeness of which he has contributed so largely by his own untiring personal influence and exertions. Before his lordship left his house in Bruton street, he received a telegram from the Crown Princess of Prussia, as follows: "My best wishes for the success of to-day's ceremony, and of the whole undertaking."

At a quarter past one, a shrill blast from the trumpeters of the Life Guards, which pealed through the whole building, announced that the procession had begun to move. On each side of the nave, north and south, a wide space had been railed off, which served as a path through the dense crowd, and, turning to the left, the pageant moved toward the western dome, where the opening part of the ceremonial was to take place. The following was the order of the procession: Trumpeters of the Life Guards in state uniforms; . . . Acting Commissioners for Colonies, Dependencies, etc.; Foreign Acting Commissioners; the Lord Provost of Glasgow; the Lord Mayor of York; the Lord Mayor of Dublin; the Lord Provost of Edinburgh; the Lord Mayor of London, and the Sheriffs of London and Middlesex; Presidents of Foreign Commissions; H. M. Commissioners for 1851; H. M. Commissioners for the Exhibition of 1862; H. M. Ministers; H. M. Special Commissioners for the Opening; H. R. H. Prince Oscar of Sweden; H. R. H. the Crown Prince of Prussia.

The Duke of Cambridge, as he passed along, was loudly cheered, and Lord Palmerston and Lord Derby, who on this occasion appeared in close conjunction, were also warmly received. On a raised dais under the western dome had been erected a magnificent canopy, and underneath were ranged chairs of state for the Queen's Commissioners—the Duke of Cambridge taking the center, with the Prince of Prussia on his right and Prince Oscar of Sweden on his left. In the glittering crowd beneath were grouped together in a glowing mass every variety of uniform, and stretching away behind was the rich perspective of the nave, with the vast ex-

pense of the densely-packed orchestra as a background—hidden at points by the obstructive trophies, but still visible and effective as a grand whole. But the brilliancy of the scene was not its chief interest. In that throng were gathered together some of the greatest names in the arts, sciences, and manufactures of the country. The various colonies and dependencies which carry England's empire as a girdle round the earth, were represented; and there, too, were the delegates of all great nations. In the persons of the Commissioners of 1851, the great exemplar of these peaceful contests was commemorated, and additional weight and solemnity were added to the occasion by the presence of the chief leaders of the State. When his Royal Highness and the other Commissioners had taken their seats, Earl Granville, who, and his colleagues, were grouped immediately in front of the dais, advanced, and handed to the Duke of Cambridge an address.

The Duke of Cambridge replied in a loud and clear voice which was distinctly audible at a considerable distance:

"We can not perform the duty which the Queen has done us the honor to commit to us as her Majesty's representatives on this occasion without expressing our heartfelt regret that this inaugural ceremony is deprived of her Majesty's presence by the sad bereavement which has overwhelmed the nation with universal sorrow. We share most sincerely your feelings of deep sympathy with her Majesty in the grievous affliction with which the Almighty has seen fit to visit her Majesty and the whole people of this realm. It is impossible to contemplate the spectacle this day presented to our view without being painfully reminded how great a loss we have all sustained in the illustrious Prince with whose name the first Great International Exhibition was so intimately connected, and whose enlarged view and enlightened judgment were conspicuous in his appreciation of the benefits which such undertakings are calculated to confer upon the country. We are commanded by the Queen to assure you of the warm interest which her Majesty can not fail to take in this Exhibition, and of her Majesty's earnest wishes that its success may amply fulfill the intentions and expectations with which it was projected, and may richly reward the zeal and energy, sided by the cordial coöperation of distinguished men of vari-



ous countries, by which it has been carried into execution. We heartily join in the prayer that the International Exhibition of 1862, beyond largely conducing to present enjoyment and instruction, will be hereafter recorded as an important link in the chain of International Exhibitions by which the nations of the world may be drawn together in the noblest rivalry and from which they may mutually derive the greatest advantages."

This concluded the portion of the ceremony which was appointed to take place under the eastern dome, and the procession slowly unwound itself, and proceeded in the same order as before down the nave. As it moved off the bands of the Foot Guards, stationed on the western platform, played Handel's "March" in *Scipio*, but when it had advanced well out of ear-shot the pipers of the Fusilier Guards, who closed the rear, struck up a pibroch which might have been very appropriate, but scarcely seemed to be appreciated by those near enough to suffer all its shrillness. Under the eastern dome, where the vast concourse of distinguished visitors not officially engaged in the ceremony had long been congregated, a dais had been erected hard by the Majolica fountain, where the Queen's Commissioners took their seats on the chairs of State provided for them. Of the ceremonial music the main feature was the overture by M. Meyerbeer, rich in variety of expression, and appealing everywhere with the energy of genius to the soul as well as to the ear.

The music applied by Dr. Sterndale Bennett to the ode by Mr. Tennyson which we published last week, produced a chorale of much musical value, but it was not the poetry of sound following the poetry of sense. The treatment was skillful, scientific, but conventional. The female and male voices were distributed and alternated rightly and effectively, but only as no good musician, without aid from the light of genius, could have failed to apply them. The poet had written for the musician; it is impossible not to read the ode without feeling that it was deliberately planned to give occasion to the full musi-

cal expression that it has, we think, failed to receive. It is not fair, perhaps, while hearing Dr. Sterndale Bennett's rendering of the three exquisite lines, "O silent father," etc., to dream of the music through which Mendelssohn would have known how to give them utterance. Dr. Bennett's music was very good, but wholly uninspired. The freshest and truest part of his chorale was the rendering of the three lines that begin, "O ye the wise who think," and we may include in the praise also the preceding couplet.

M. Auber's March, the other new contribution to the music of the day, was entirely graceful and pleasant. Of the performance of the band of eight hundred, and of the chorus of two thousand, praise can not be too emphatic. Every word from the two thousand voices came forth clear and musical, the word and the music were one, and there was no need of books for those of the great audience who sat or stood anywhere within fair hearing distance.

After the conclusion of the special music the Bishop of London, with much fervency of manner, read a prayer.

After the close of the prayer the Hallelujah Chorus was sung more effectively perhaps than it was ever sung before, and with this the religious part of the ceremony came to a conclusion. The Duke of Cambridge then rose, and in a loud voice said: "By command of the Queen I now declare the Exhibition open." The trumpet of the Life Guards saluted the announcement with a prolonged *fanfare*, and the crowd echoed it back with a cheer which was taken up and speedily spread from one end of the building to the other. This ended the official ceremonial. Part of the procession made its way to the picture galleries, and, the barriers having been removed which confined them to their appropriate quarters, the visitors rapidly dispersed all over the building. There must have been at this time twenty-five thousand people in the Exhibition; but, except in the passage north and south of the nave, there was little difficulty in moving about.

## L I T E R A R Y M I S C E L L A N I E S .

**RAVENSHOE.** By HENRY KINGSLEY, author of "Geoffrey Hamlyn." Boston: Ticknor & Fields. 1862. Pp. 430.

THE contents of this semi-historic romance is divided into sixty-six chapters. They present the history of the Ravenshoe family, amid its varied and changing scenes. The story is much like a well-arranged panorama of sixty-six scenes. The various and numerous personages in the plot of the story are busy acting their parts, appearing and disappearing as the panorama moves on. The Ravenshoe family have an ancient origin away back in the times of Canute, and trace their history along a period of nine hundred years, to the reign of her present Majesty of England. The author, in his descriptions of these varied personages, keeps them fully occupied in talking and acting out the scenes of his story. They exhibit a large variety of human character, passion, and idiosyncracies, and in these respects show that they belong to our common nature. The phases of human life are presented in many word-paintings which the reader will recognize as true to life. The localities of the story are also varied, including London, Dublin, Oxford, and other places and scenes in the Old World. We refer the reader to the book itself, which it is enough to say is published by Ticknor & Fields.

**THE COMING CRISIS OF THE WORLD; OR, THE GREAT BATTLE AND THE GOLDEN AGE.** The signs of the times indicating the approach of the great crisis, and the duty of the Church. By Rev. HOLLIS READ, author of "God in History," "India and its People," "Palace of the Great King." With an introductory note by Rev. STEPHEN H. TYNG, D.D. Columbus: Follett, Foster & Co. 1861. Pp. 345.

THE excellent author of this instructive volume has handed us a copy. It is a work not simply to be read, but to be studied, pondered, and inwardly digested. The views which it presents are quite out of the common track of thought, and although the reader may not exactly agree with all conclusions, yet he will be deeply impressed and instructed upon some of the greatest themes which can arrest the attention of the human mind. The introductory note of Dr. Tying is highly commendatory of the work and its doctrines, and all who know this eloquent and fervid preacher will be satisfied with his commendation of the work.

**THE LIFE AND LETTERS OF WASHINGTON IRVING.** By his nephew, PIERRE M. IRVING. Vol. I. New-York: G. P. Putnam, 532 Broadway. 1862. Pp. 463.

THE name of Washington Irving, a name so revered by his countrymen—a prince among literary men, and a man of renown the world over—will be quite enough to interest multitudes in the story of his life. His life so pure, so good, his character so high upon the roll of fame, will be read by all who

can admire the story of the life of such a man. In the varied scenes and sketches of his life-history embodied in this interesting book, the reader will find much that is attractive and beautiful in human character. Young men just entering on the great programme of human life may derive much that is useful and worthy of remembrance in following Mr. Irving along his pathway in life's journey. We shall never forget the last hour spent in his society at his own home. The conversation in part turned upon Spain—upon the Alhambra and its Moorish reminiscences, which he has immortalized with his pen. All the enthusiasm of earlier life kindled up and beamed forth in his expressive countenance. His life can hardly fail to be read by multitudes of his countrymen.

**UNDER-CURRENTS. A Romance of Business.** By RICHARD KIMBALL, author of "St. Leger," "Romance of Student Life," etc. Fourth edition. New-York: G. P. Putnam, 532 Broadway. 1862. Pp. 428.

THIS book is dedicated to Pelatiah Perit, President of the Chamber of Commerce, an eminent merchant of New-York. The first part contains nineteen chapters, Part II. twenty-three chapters, and last part twenty-four chapters. The fact that a fourth edition of this book has been called for is a good proof that the author has hit an important and popular chord. Wall street is a famous place. Its true history will never be written by human pens. The changes, the phases of human life and business life in Wall street would furnish a romance in real life every week all the year round. This book is instructive to business men, and especially to young men who are about entering on the great whirlpool of business life in New-York.

**MARGARET HOWTH: A Story of To-day.** Boston: Ticknor & Fields. 1862. Pp. 266.

THIS attractive story of to-day has no author's name, no author's preface, and no definite locality. A story of to-day—about human affairs, human life, human incidents, which are more or less incident to all people in civilized communities—which will interest the reader.

**PRISON LIFE IN THE TOBACCO WAREHOUSE AT RICHMOND.** By a Balls Bluff Prisoner, Lieut. WILLIAM C. HARRIS, of Col. Baker's California Regiment. Philadelphia: George W. Childs, Chestnut street, 1862.

LIEUTENANT HARRIS can wield the pen as well as the sword, and when his sword was taken from him and he became a prisoner, he resorted to the pen to while away the tedium of prison life. This volume will become a part of our country's history during these months of war, and battle, and blood. It will aid the future historian in his labors in writing up the history of the times which are so full of stirring events.

**HEROES AND MARTYRS: Notable Men of the Time.** Biographical Sketches of the Military and Naval Heroes, Statesmen, and Orators, distinguished in the American Crisis of 1861-1862. Edited by FRANK MOORE. With portraits on steel from original sources. New-York: G. P. Putnam, 532 Broadway. 1862.

We have received from Mr. Putnam eight numbers of this work in quarto form. Each number is embellished with two portraits of men distinguished for their eloquence or valor in the present struggle. The work is an honor to our country in its artistic and literary aspects. It puts on record, in a permanent form, accurate and well-engraved portraits of men of distinction, and biographical sketches of their lives and actions.

**COUNT CAVOUR: A Discourse on the Life, Character, and Policy of Count Cavour,** delivered in the Hall of the New-York Historical Society, February 20th, 1862. By VINCENT BOTTA, Ph. D., Professor of Italian Literature in New-York University, etc., etc. New-York: G. P. Putnam. 1862.

AMONG a numerous auditory, we listened with great pleasure to this eloquent discourse of Professor Botta. It was an able and worthy tribute to the memory of one of the most renowned statesmen of Europe and the regenerator of Italy.

**THE PEARL OF ORE'S ISLAND: A Story of the Coast of Maine.** By Mrs. HARRIET BEECHER STOWE, author of "Uncle Tom's Cabin," "The Minister's Wooing," etc. Boston: Ticknor & Fields. 1862. Pp. 437.

THIS is a renowned story from the pen of a renowned authoress. Its name, its scenery, and the varied and numerous personages which appear along its changing panorama are already widely known to the reading public, through the periodical press. But the public will be glad to have the whole story in a neat and attractive volume, in the usual style of these well-known publishers. The name and popularity of the greatly gifted authoress will secure for this volume a multitude of readers.

**AGNES OF SORETO.** By Mrs. HARRIET BEECHER STOWE, author of "Uncle Tom's Cabin," etc. Boston: Ticknor & Fields. 1862. Pp. 412.

THE scenes of this story are laid in Southern Italy, the classic land of song and of history. It might be almost entitled *A Walk among Convents*. But the story—the country—the sunny climes of Southern Italy, with all the varied historic associations which abound in that land of song, add greatly to the attractions of this new volume of Mrs. Stowe. Many of our readers are aware that the authoress has been a traveler and sojourner in Southern Italy, where to a cultivated mind every thing is richly suggestive of instructive thought. Mrs. Stowe gathers up literary treasures in all lands and scenes which she visits.

MR. CARLETON has sent us "Our Flag," a poem in four cantos, by T. H. UNDERWOOD.

The present war seems to have stirred the hearts of the muse as well as the hearts of patriots. We shall have war songs enough to last a hundred years.

**NEW METHOD FOR THE MELODEON, HARMONIUM, and other instruments of the organ class.** Selected mainly from Zundel's Melodeon Instructor; to which are added a collection of the most popular songs of the day, and a variety of Psalm and Hymn tunes. Boston: published by Oliver Ditson & Co., 277 Washington street.

MR. DITSON has handed us a copy of this valuable and well-arranged work of 88 large quarto pages, filled with choice musical treasures. We have frequently advertised melodeons, Mason & Hamlin's and others, and it is quite fitting that we should commend the best volume of music from which the learner can best acquire ability to perform upon them. This work is the best for the purpose which we have examined, and we commend to all who can, both to purchase a good melodeon, and use this work in acquiring musical skill.

**LYRICS FOR FREEDOM, and other poems.** Under the auspices of the Continental Club. New-York: Carleton, publisher, late Rudd & Carleton. 1862.

THIS volume comprises some fifty to sixty poems or songs, on the various themes which the war and the tramp of armies, and the multiplied scenes of national convulsion have given rise.

**CONGRESS HALL.**—We invite attention to the programme of the proprietors of Congress Hall, in another column. We speak from personal knowledge and from observation in commending this well-kept establishment to the visiting public at Saratoga. The gentlemanly and courteous proprietors give their personal attention to their guests, and spare no efforts in providing for their comfort and gratification. Spacious parlors, extensive dining-rooms, with ample tables well spread with luxuries in variety, attentive servants in waiting, cool and comfortable sleeping apartments, fanned by the waving branches of overshadowing trees, invite to repose and impart an impression of quiet home feeling, very grateful to those who can appreciate these luxuries in a summer sojourn at Saratoga.

**BOSTON AQUARIAL GARDENS, No. 240½ WASHINGTON STREET.**—P. T. BARNUM, Esq., the renowned showman, has become the purchaser of these gardens, and is fitting them up in new and attractive forms to interest and instruct the public, concerning the forms, habits, and appearance of the curious denizens of the deep. The thanks of the public are due to Mr. Barnum for his efforts and enterprise in thus contributing to the gratification, amusement, and valuable instruction, presented in these beautiful Aquarial Gardens. We do a service to this popular science in commending these gardens to popular resort.

A COLLECTION of fossil remains, found in the Portland stone quarries, has been made for the Connecticut Historical Society. Professor Hitchcock pronounces the fossils relics of remote antiquity. Among the specimens are footprints of enormous birds and four-footed beasts, impressions of fern-leaves and fragments of a behemoth.

It is now fully determined that Napoleon III., will not visit the International Exhibition in London. The *Moniteur* says so.

**THE PRINCE AND THE JEWS AT JERUSALEM.**—Ten days after the arrival of the Prince in the Holy City, he met by appointment, at the western wall of the temple, the Chief Rabbi and others of the heads of the Jewish community of Jerusalem. The Chief Rabbi appeared in his full robes, and with the insignia of his office as Hacham Bashi, which, being an appointment by the Sultan, confers on him great civil powers and authority. The Prince received the deputation in a most gracious manner, and after the ordinary formalities entered freely into conversation with the Chief Rabbi; of whom he inquired if he believed the massive wall by which they stood to be a portion of the great master-work of King Solomon. The Chief Rabbi's explanatory remarks in answering this question in the affirmative evidently impressed the Prince; for he raised the covering from his head in token of the sincere veneration which he felt for the sacredness of the spot; and who can tell what associations of thought crowded on him at that moment, for he immediately requested the Chief Rabbi to offer up a prayer for his "mother, the Queen of England!" The Chief Rabbi then prayed aloud in Hebrew for the health of "Queen Victoria," and with great fervency, that she might long continue to reign, and with wisdom like unto that of Solomon. At the conclusion, all the deputation ejaculated "Amen, Amen." The prayer being interpreted to the Prince, he was greatly moved, and even more so when the Chief Rabbi followed this prayer with an invocation to the King of kings that the soul of the late Prince Consort might rest in peace in the realms of eternal bliss.

The Prince, accompanied by the Chief Rabbi, then visited the synagogues, which were brilliantly lighted up and decorated as on a festival, and were crowded to excess. Prayers were there offered up for the Prince, Prince Alfred, and all the royal family. At the first synagogue which he visited the Prince asked to see one of the scrolls of the law, and he examined the sacred volume with great earnestness. The Prince then went with the Chief Rabbi to view the two new synagogues and the Rothschild Hospital, and during this time they held almost uninterrupted conversation in the Italian language. The amiability of the Prince on this occasion was as conspicuous as was the deep interest which he exhibited in all that took place; and his most courteous demeanor throughout toward the Chief Rabbi and the whole Jewish community is creditable alike to his heart and to his enlightened mind. — *Jewish Chronicle*.

**ENORMOUS CAPTURE OF WHALES.**—On Tuesday, the 8th instant, a large shoal of "cnaing" whales were seen approaching the land in the direction of Whiteness. The welcome news soon spread, and boats were quickly manned by brave men of all classes, fully equipped with harpoons, lances, etc., to do battle with these monsters of the deep. Undaunted by want of success and the inclemency of the weather, after considerable delay, the men succeeded in bringing the pack into the Voe of Weisdale. When they got into shallow and muddy water, their assailants finding some difficulty in landing them, and no doubt wishing to enjoy the whole instead of two thirds of the proceeds of their capture, commenced to attack them at sea. The boats being numerous, the whales close together, and, it is unnecessary to add, the men most dexterous in the use of the various instruments of death,

in a short time the whole pack was, with few exceptions, either killed or wounded. After being killed, the animals were generally tossed ashore, but many escaped wounded from their captors, and, dying from their wounds, sank. After a lapse of twenty-four hours their carcasses reappeared on the surface, and, being picked up, were landed at places most convenient for the captors. Owing to the great number of places at which they are landed, and the great distances they are from each other, it is impossible as yet to say the exact number captured. Some reports fix it at about 500, others at 200; but probably 300 or 400 is more correct. In the affray several boats were stove in, and others completely smashed and their crews thrown into the sea; but, fortunately, all the men were rescued immediately, and nothing serious was the result. The news of this large capture of whales created considerable excitement in Lerwick, and on Saturday several gentlemen proceeded to Weisdale, some on business and others on pleasure, amongst whom were some gallant riflemen, who had determined to try the effect of their Enfield balls on the monsters of the deep, but were unfortunately too late.—*Shetland Advertiser*.

**THE GREAT SHIP CANAL.**—The *Stickle* publishes a long letter from a private correspondent, giving a glowing account of the progress of the works in the Isthmus of Suez, which he has recently visited throughout their whole extent, in company with M. de Lesseps and a party of twelve gentlemen and four ladies. The writer says: "I can now assure you, from personal experience, that sixty-seven kilometers of the Suez canal are already navigable; that the waters of the Nile are conveyed into the middle of the desert; that 20,000 men are now employed, and that their number will be increased to 40,000 next month, so that in less than three months the cutting through the threshold will be completed. If any persons now doubt the feasibility of the undertaking, let them visit it, as I have, and all their doubts will vanish."

#### THE OCEAN.

O MIGHTY mausoleum, vast, sublime!  
Where many a brave man's whitened bones repose,  
Down where perchance the blushing sea-flower  
grows,  
And rare weeds up the coral-pillars climb.  
Mayhap mysterious creatures crawl or swim  
'Mid skulls and bones, shell-crusted thickly o'er  
Fantastic made, lying on jasper floor  
Of some old pearl-roofed cavern deathly dim.  
O mighty king! in fourfold coffin shut,  
When Death has shown thy compeers what we are,  
The grandest, most imposing sepulcher  
That man can build were but a sorry hut  
Compared with his who grappled with the wave,  
But yielding, dropt into his broad sea-grave.

J. E.

**ALLITERATION.**—As an altogether admirable and amusing attempt at alliteration, an anonymous author astonished all admirers of alliterative ability, some seasons since, by the subjoined singularly successful specimen:

"Surpassing sweet, seraphic strains she sings,  
Softening and spirits' sympathetic strings;  
Such soul subduing sounds, so strangely soothing,  
She seems some saintly spirit sorrow smoothing."



**THE TRUE WOMAN.**—The true woman, for whose ambition a husband's love and her children's adoration are sufficient, who applies her military instincts to the discipline of her household, and whose legislative faculties exercise themselves in making laws for her nurse; whose intellect has field enough for her in communion with her husband, and whose heart asks no other honors than his love and admiration; a woman who does not think it a weakness to attend to her toilet, and who does not disdain to be beautiful, who believes in the virtue of glossy hair and well-fitting gowns, and who eschews rents and raveled edges, slipshod shoes and audacious make-ups; a woman who loves more than she reasons, and yet does not love blindly; who never scolds and rarely argues, but adjusts with a smile; such a woman is the wife we have all dreamed of once in our lives, and is the mother we all worship.

**THE LONELY GARDENS ON THE THAMES.**—There is a pretty garden on the river Thames; it has ancient and wide-spreading cedars, beds of rare flowers, and pleasant grass-plats. In the hot days the passengers up and down the river point to it, and say how grateful the shade of its trees must be, and how delicious the odors of the flower-beds! But not a human creature is ever seen there. The gay parterres are only dimly discerned at an undistinguishable distance, the shade gives no enjoyment, and the little Eden exists useless amid a dense and gasping population. If some curious and persistent individual should land near Chelsea Hospital, and try to find out a land-side entrance by which this garden may be accessible, he discovers nothing but a lofty, dreary, dead wall. You would think, as you walk under that dead wall, that some miser had built it up that no man might have a breath of the air that passes across his property without paying for it. This charming spot was many years ago set apart by a benevolent man for the general good of his species. Sir Hans Sloane bought it and gave it to the Faculty of Physicians, that it might be a Botanic Garden, to be cultivated for the discovery of new vegetable medicines. This use has long ceased. There are philanthropic men among this Faculty of Physicians; will no one of them move his brethren to order that this dreary wall be pulled down, and a light rail be substituted? Perhaps, if he be very liberal, he might even go so far as to propose that the public might sometimes be permitted to walk in these pleasant and now unused grounds.

**PHYSIOLOGICAL PHENOMENA.**—M. Louis Lucas, a gentleman well-known for his scientific attainments, lately received a select circle of visitors at his house, to exhibit and explain the principle of an apparatus of his own invention, by which a physiological fact of great importance is rendered apparent, namely, direct action of the living frame on the magnetic needle. The apparatus itself is of extraordinary simplicity. A single element of Bunsen's battery has its poles in communication with an electro-magnetic bobbin, surmounted by a graduated disk, bearing a magnetic needle which oscillates freely around its center, as in the common compass. This part of the apparatus is protected by a glass shade; the plate may be raised and lowered at pleasure by a wheel and rack. The conducting wires, after communicating with the bobbin, branch out toward the operator, and are connected together by a loose metal chain. The apparatus being in this state the needle remains perfectly quiescent, until the operator takes hold of

the chain either with one hand or both, when the needle at once begins to move, describing arcs of from ten to ninety degrees. No principle hitherto admitted in physical science can account for this strange phenomenon, and we are compelled to admit a physiological action capable of producing such motion. The experiment was varied in many ways in our presence, and we were ourselves allowed to test our individual power on the needle. That the cause of the motion was of a physiological nature was further proved by the circumstance that the oscillations of the needle varied in intensity according to the persons experimenting, and even according as the same person might be differently affected, either by tranquillity or a warm discussion, such different states naturally modifying the susceptibility of the nervous system. Stranger still, some persons present produced the oscillations by merely touching the chain with a glass rod about two meters in length, glass being, as our readers know, a non-conductor. Whatever explanation may hereafter be given of M. Lucas's discovery, one fact seems even now indisputable, namely, that the human body may directly influence the needle; what consequences may be evolved therefrom, time alone can show.—*Galiganani.*

A STRANGE story, not by Bulwer, is going the round of the English press. A lately-married Irish earl wishing to improve his old mansion, set architects and carpenters at work, who discovered a room hermetically bricked up. It was fitted up in the richest style of one hundred and fifty years ago, and on a couch lay the skeleton of a female, while on the floor was the skeleton of a man, presenting evident traces of violence. Jewels and dresses lay scattered about the room, but the fearful secret had been so well kept that no tradition could be remembered which would give any clue to the affair. The survivors—an injured husband probably among them—walled up the apartment, which has kept its dread secret over a century and a half.

A PRACTICAL REPROOF.—Richard I., having taken Philip, the martial bishop of Beauvois, threw him in prison; and the Pope sent to desire his release as a son of the Church. Richard sent the Pope the armor the bishop wore when taken, with these words of Jacob's sons: "This we found; see whether it be the coat of thy son or no."

**THE TAGLIONI PEDIGREE.**—The mother of the celebrated Taglioni died on the 26th February, from an affection of the stomach. She was a woman of great worth and genius, and was the daughter of Gustavus III.'s Chapel-Master. She perfectly remembered the death of that monarch, whom our readers will recognize as the hero of one of their favorite operas. After the assassination of that king, she married Taglioni, a celebrated ballet-master of his day, and the illustrious "Sylphide" was the fruit of the marriage. The mother and daughter always lived together. Marie Taglioni married the Count Gilbert de Moinsins, and her daughter is the Princess Troubitskoy.

KING HENRY VIII., was going to hang the mayor of Boulogne for not firing a royal salute as he approached that municipality. His honor said he had twenty-four reasons for not doing it, the first of which was, he had no powder! "Not a word more," said blunt King Harry, "you are forgiven."

**LOCK-JAW CURED.**—The following remarkable case of the cure of lock-jaw is related by the *Italian Medical Gazette* of Milan. A hair-dresser of that city accidentally received a cut with a scythe on the palm of his left hand, near the wrist. This occurred about the beginning of March, 1861; the wound healed in six days, and it was not until the 30th following that, on rising from his bed, he felt some difficulty in opening his mouth, beside contractions in his left hand, which he could not stretch out, and pains in the right hip and thigh. During the first days, these phenomena disappeared on going to bed, but commenced again as soon as he rose and exposed himself to the open air. On the 10th of April, the symptoms becoming more intense, he was taken to the hospital. On the following day a spasmodic contraction of the muscles of the lower jaw, and rigidity in those of the neck were observed; the left hand experienced a contraction every time it was taken from under the bed clothes, and the pain on the right side continued; the pulse was very slightly agitated. Sixteen grains of chloride of barytes, dissolved in a pound of distilled water, were prescribed, to be taken in the course of twenty-four hours. This treatment was continued until the 21st, when the symptoms of lock-jaw having nearly entirely disappeared the dose was reduced to eight grains a day, and the remedy entirely left off on the 26th; two days later the patient left the hospital in perfect health.

**REPLANTING FRANCE.**—The French Government is seriously occupied with a scheme for replanting the mountains in France, the diminution of timber-trees creating considerable alarm. The Commissioners of Woods and Forests have announced to the commercial authorities that they will supply all persons with seeds and plants who will undertake to replant the mountain sides. The communal authorities are to address their demands to the Prefect of their department, and private individuals to the Conservators of Waters and Forests. In case of the failure of the seeds or plants, private individuals shall not be called on to pay for them, provided they are planted under the direction of government agents. Landed proprietors who plant their mountains at their own expense are to be entitled to a premium.—*Paris letter.*

The grand essentials to happiness in this life are something to do, something to love, and something to hope for.

As when we have thoughtlessly looked at the sun, our dazzled eyes, though closed, behold it still, so he who is smitten by love, beholds by day and by night, the radiant image of her upon whom he has too rashly gazed.

The young lady who took the gentleman's fancy has returned it with thanks.

## CONGRESS HALL, SARATOGA.

HATHORN & McMICHAEL.

SARATOGA SPRINGS, JUNE, 1862.

THE Proprietors and Conductors of this immense and favorite establishment announce to the traveling public that its doors and saloons will be opened for the reception of company on the fifteenth of June, and remain open till the first of October.

There is so much of personal comfort, pleasure, and health to sojourners at a summer watering-place depending on the direction and management of a great Hotel like Congress Hall, that the Proprietors deem it due to the public and just to themselves to give ample information of what they have done by lavish expenditure for the reception and accommodation of their old friends and new visitors who may seek a sojourn at Saratoga the present summer. They beg to enumerate some of the comforts, advantages, and attractions of Congress Hall, which invite visitors to Saratoga to seek a home in its spacious and commodious apartments and saloons.

1. Congress Hall is a long-established and favorite resort of visitors to this valley of fountains and mineral springs. Here numerous friends—of high culture and intelligence—meet and sojourn together in social intercourse, much like the members of a large family.

2. The Proprietors feel confident in saying Congress Hall ranks first among watering-place hotels in the world.

3. There is but one Saratoga in the world. And Congress Hall is located directly adjacent to the famous Congress Spring, in a fine old shady grove, cool and delightful.

4. The accommodations of Congress Hall have

been much increased. Large and expensive improvements in the building, in furniture, and in decorations have been made. The parlors are spacious and the dining saloons ample and convenient. Prompt, faithful, and attentive servants will be in constant attendance, and no neglect of duty or inattention to the comfort of visitors will be allowed by the Proprietors.

5. Congress Hall is provided with an immense promenade piazza, 251 feet long by 20 wide, sheltered from the rain and shaded from the sun by lofty columns, trees, and luxuriant shrubbery. It has in the rear 1000 feet of piazzas. It has two spacious parlors, newly furnished and decorated, 70 feet by 32, and 80 by 32. It has 296 sleeping-rooms, besides private parlors.

6. The tables of Congress Hall, 600 feet long, will be daily spread with viands of ample variety and abundance, and served by attentive waiters.

7. The Proprietors are determined to spare no pains and efforts to render Congress Hall a home of pleasant resort and comfort unsurpassed by any hotel in the country. They only add, that among the aggregate arrivals of FORTY THOUSAND at all the hotels, Congress Hall carried off the palm in numbers. We say this only in the spirit of friendly competition. We shall cordially greet the arrival of our old friends, and we hope to receive many new ones, with our best efforts to please and satisfy all who favor us with their company.

We have erected spacious barns and stables, and carriages and horses can be promptly furnished to order for rides, or horses and carriages of visitors boarded at livery.